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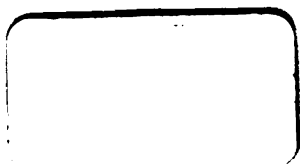


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Arthur W. Brayley
his book.

HISTORY OF THE GRANITE INDUSTRY OF NEW ENGLAND

BY

ARTHUR W. BRAYLEY

*Author of "Schools and Schooldays of Old Boston"; "Bakers
and Baking in Massachusetts"; History of the Boston
Fire Department"; etc.*

VOL. II.

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VERMONT GRANITE
INDUSTRY

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CUT FROM STOCK FROM PATCH & Co.'s QUARRY, MONTPELIER, VT.



PLANT OF THE LILLIE GRANITE CO., BARRE, VT.

CHAPTER XI.

BARRE, VERMONT, THE "GRANITE CITY" OF THE WORLD.—LOCATION OF THE QUARRIES AND THE QUALITY OF GRANITE PRODUCED.

ON November 6, 1780, 19,900 acres of wildland, comprising the present city of Barre, Vermont, were chartered to "William Williams and sixty others," and to this tract of unbroken wilderness the name of Wildersburgh was given. At that time, when the pressing needs of money to carry on the apparently unequal contest for recognition as an independent state, oppressed the early settlers, it was seldom that any question of future settlement entered into the matter of selling wildland, and, so far as any record shows, neither Williams nor any of his sixty associates ever looked upon the rugged hills of the town. In 1788, John Goldsbury and Samuel Rogers, with their families, began the work of colonization. From that time until 1793, on March 11, of which year the first town meeting was held, the little town prospered. Emigrants from New Hampshire, Massachusetts, and far-away Rhode Island, arrived and settled in the new township, and in many cases establishing a homestead where their descendants still live. In 1791, the claims and rights of Vermont were recognized by the Congress of that year, and a sudden impetus was given to the colonization of the State, of which the new town, located so closely to the centre, received a goodly share.

In September another meeting was held, at which time it was agreed that a house to be used as a house of worship should be erected, and it was further agreed and voted that the man who would give the most towards building the same should have the right to name the town. Sixty-two pounds (equal to \$310) was bid by Ezekiel Dodge Wheeler, who named the town Barre. But right here should be introduced the tradition concerning the christening of the town as recorded by Thompson in his "Gazeteer of Vermont," which is to the effect that the name was decided by a

fight between Captain Joseph Thompson of Holden, Mass., and Jonathan Sherman from Barre, in the same State; that Sherman was the "better man," having "knocked out" his antagonist and named the town. This story bears evidence of truth if we may judge from the following record of the town entered in September, 1805, "Voted to destroy the note given by Mr. Wheeler and not collect it." At this meeting it was also "Voted that the representative be influenced to pursue and obtain the incorporation of a new county, which was to contain the towns of Barre, Berlin, Montpelier, Waterbury, Middlesex and Orange, and was made agreeable to a certain request made by an inhabitant of Montpelier."

In 1795, some of the residents appeared to be dissatisfied with the name of their town, perhaps some of the defeated captain's friends, because on October 5th of that year the question of changing the name was put to vote, but it was "Voted not to petition the Assembly to alter the name of the town of Barre." This seems to have settled the matter so far as any action of the town was concerned.

The growth of the new town during the early part of the last century was slow, not differing materially from that of other townships in the centre and northern parts of the commonwealth. Farms were purchased and cleared by men determined to wring a living from the fertile soil, and the tradesman and manufacturer followed as a natural result. House lots sprung up in different parts of the town, and "Thwingville," where Joshua Thwing, "the mill builder," had his foundry and machine shop; "Gospel Village," "Jockey Hollow," or "Mill Village," as it was often called, now South and East Barre, were small settlements outside the main or "centre village." The first three of these have nearly lost their identity in the limits of the incorporated city of Barre, and the others, together with Graniteville, the quarrymen's home, have absorbed their share of the recent growth of town and city, and now rejoice in railroads, post-offices, telephone lines, and established business enterprises that are steadily increasing as the years go by.

Over much of the granite area of Barre and Williamstown, which is about eight miles long and four miles wide, the drift cover is heavy. Nearly all the more interesting exposures lie in the southern half of the granite area, and this portion yields more than nine-tenths of all the granite produced by Barre township. All the important quarries are located on the eastern slopes of Millstone



THE LATE WILLIAM BARCLAY,
Founder of firm of Barclay Brothers, Barre, Vt.

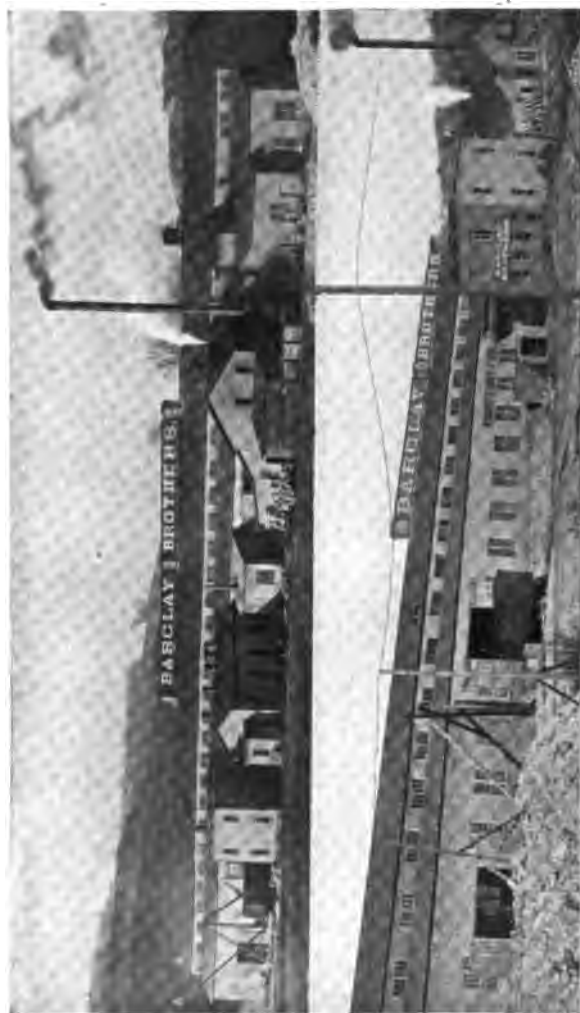


DOUGLAS M. BARCLAY.



WILLIAM BARCLAY, JR.

Firm of Barclay Brothers, Barre, Vt.



PLANT OF BARCLAY BROTHERS, BARRE, VT.



JAMES SECTOR.



TONY RIVOLTA.

Firm of James Sector & Co., Barre, Vt.



PLANT OF THE DEWEY COLUMN & MONUMENT WORKS, BARRE, VT.



CUT BY THE MOVALLI GRANITE COMPANY, BARRE, VT.



CUT BY SCOTT BROTHERS, BARRE, VT.



CUT BY THE NORTH BARRE GRANITE COMPANY, NORTH BARRE, VT.

Hill, or immediately to the south of it, where the joints are irregular and crowded together "boulder quarries" only can be operated, and the output is of small-sized blocks. The most favorable quarry locations are cut by few joints, and pieces of any desired size can be taken out to the limit of transportation. For many feet below the surface the approximately horizontal joint-planes, roughly parallel with the outlines of the granite mass, give rise to a perfect development of the well-known "onion structure" in the quarries. The same tendency may be noted on the ledges in the woods along the western slopes of the hill, where at times four or five successive steps, cut out by sloping joint-planes in the same ledge, may be seen over a little space. The remarkably perfect and even slickensided planes standing at high angles, which are characteristic of granites everywhere, are often seen in these quarries. They are evidently due to pressure, and fall into two systems, nearly at right angles to each other. Surfaces showing well-developed feather-fractures where there is no evidence against their being on the natural joint-planes are occasionally found in the quarries, but there is always a good chance of their having been produced artificially. The effects of weathering are not found deep below the surface in the main portions of the granite mass, but thoroughly weathered shear zones of fractured and useless rock are often met. No well-marked schistosity, or gneissoid phase of the granite was observed, but the rock is characterized by the distinct grain which is known to the quarrymen as the "rift." This, with the "heave" and "lift," are the three planes of more easy parting at right angles to each other, which define the blocks as they are taken out.

Hand specimens of the granite collected from various points on and about Millstone Hill are widely different in general appearance. They vary little, however, in the proportions of the constituent minerals. Feldspar, quartz, and mica make up the rock, which is prevailingly medium grained. Its color is gray, or bluish gray. Upon the abundance or scarcity of black mica depend primarily the grades of dark, medium, or light stock known to the trade. Much of the granite on the western and southern slopes of Millstone Hill is relatively so poor in mica as to be quite different in character from the main mass. It is not considered valuable, and but little of it has been quarried. The dark stock, which brings the highest prices, is found over the east-central portions of the hill, and well to the south of it. It tends to become slightly more basic in depth, as well

as locally, near the contacts, where large inclusions of the schist are met with. The darker granite is often finer grained than the light and medium grades. It differs from them in the distinct bluish cast which characterizes its feldspars, as well as in its larger content of mica. In the light-colored granite the feldspar crystals are seen to be hardly tinged with blue. Basic segregations, known to the quarrymen as "knots," are occasionally found. In them the mica is extraordinarily abundant, and quartz is rare, as compared with the feldspar. The "knots" are seldom above six inches in diameter. They are sporadic in their distribution, so that no portions of the rock can be quarried which have any value from their occurrence in it. Mirolitic veins and pockets occur at many points.

The granite of Orange Mountain is much coarser, and in many places lighter than the Barre granite. The crystals of feldspar are oftentimes very large. When the coarse exterior has been removed, there may be revealed a fine granite equal in many respects to the famous Barre neighbor. It is not a continuous body with the Barre granite, for it is separated from it by a band of sedimentary rocks two miles in width.

The granite of Blue Mountain, like the Barre, is susceptible of a beautiful polish. The mica constituent is both muscovite and biotite. The quartz sometimes assumes a reddish hue, giving a great variety in color. The mountain, like Ascutney, is the modern representative of an extinct volcano, and the Washington limestone, which encircles it, shows abundant evidence of excessive heat.

The history of this mountain records at least two eruptions. The largest gave rise to the main body of the mountain which reaches an altitude of 3,325 feet. The granite flowed out over the encircling limestone like molten lava and calcined the lime to a distance of more than 500 feet. Little Ascutney, 1,700 feet high, represents the second eruption. The rock of Little Ascutney is in part a beautiful granite of great value for all monumental and structural purposes.

Other granite areas not otherwise described are represented in Cabot, Marshfield, Groton, Topsham, Orange, Chelsea, Strafford and Trowbridge.

In many of the Vermont quarries the stone lies in an exceptionally favorable manner for quarrying and this, it goes without saying, is a very important matter, economically. It also occurs in great sheets or masses from which very large and sound pieces

can be moved out. There have been larger pieces of granite moved in some of the Vermont quarries than anywhere else. The largest piece was moved at one of the quarries of E. L. Smith & Company, which was 200 feet long, 80 feet wide and 24 feet thick. Its estimated weight was 69,120,000 lbs., as it contained 384,000 cubic feet. A mass of this size is, of course, not moved from the quarry nor very far in it, but it was broken entirely away from the main mass.

Such a block would, when broken up, fill 1,728 cars, giving each a 40,000 lbs. load. In a quarry carried on by the Boutwell-Milne-Varnum Company a mass was moved which contained 190,000 cubic feet, and the Woodbury Granite Company moved a piece 200 feet long, 20 feet thick and the same in width, containing 80,000 cubic feet and weighing 12,000,000 lbs.

Next to Barre, Hardwick and Woodbury have been most active in the granite business. The quarries are mostly in Woodbury, while the cutting plants are mainly in Hardwick. Not only for monuments has Vermont granite been largely used all over the country during the last few years, but as a building stone it is used much more extensively than marble, large as have been the sales of the latter stone for building purposes. As has been noted previously, the use of stone as a most satisfactory and elegant building material has been steadily and rather rapidly increasing for some time all over the country. The granite from Robeson Mountain in Woodbury has been used in a large number of costly buildings and is in constant demand for this purpose. I suppose that few, if any, stone producing companies in the country have supplied as large an amount of building stone as has the Woodbury Granite Company.

The gray granite of Barre is remarkable indeed for its evenness and beauty in the rough and in polished pieces. Its qualities of resisting the agencies of weathering, and of continuing to look clean and bright after exposure, are greatly in its favor. It has become famous as well for its wonderful adaptability to tool treatment. On the singularly beautiful monumental stone over the grave of the two Gobbi children in the cemetery to the west of the city an armful of roses and lilies has been carved in the round with matchless skill. Such work would have been wonderful in marble. The monument to Robert Burns in the city of Barre, with its statue of the poet, and pedestal covered by illustrative

Classification of Vermont Granite.

Economic Group.	Locality.	Trade Name.	General color and shade.	Texture.	Petrographic Name.
Constructional.	Derby.....	.....	Light bluish gray.....	Medium-fine.....	Quartz monsonite with both mica.
	Calais. (See under Monumental.)				
	Woodbury (Robeson Mountain).	Woodbury gray (Fletcher).	Light gray.....	Medium.....	Biotope granite.....
	..... do.	Woodbury gray (Woodbury Granite Co.)	Medium gray (contrasts medium).	..... do. ....	..... do.
	Woodbury (prospect)		Very light, slightly buff gray.	..... do. ....	..... do.
	Dummerston (Black Mountain).	White West Dummerston.	Very light gray.....	..... do.	Quartz monsonite.....
	Dummerston (Bailey)	Bethel white.....	Light gray.....	Medium-fine.....	..... do.
	Bethel (Ellis)		Slightly bluish milk-white, mottled.	Coarse-medium..	..... do.
	Bethel (Woodbury Co.)	Hardwick white.....	..... do. ....	..... do. ....	..... do.
	Rochester (Liberty Hill)		Slightly greenish white, large mica.	Coarse.....	..... do.
	Randolph (prospect)	Fine white.....	Extremely light gray.....	Fine.....	..... do.
	Newark (prospect)	Newark pink.....	Light pinkish gray.....	Coarse.....	Biotope granite.....
	Barre (Bond & Whitcomb) ..	Coarse light Barre.....	Light gray.....	Medium.....	..... do.
	Barre (Wheaton)	White Barre.....	Very light gray.....	..... do. ....	..... do.

Hardwick (Buffalo Hill).....	Dark blue Hardwick.....	Dark gray.....	Medium.....	Quartz monzonite.....
Kirby (Grout quarry).....	.....	Light to medium, slightly bluish gray.....	Medium-fine.....	Biottite granite.....
Kirby (Kearney Hill).....	.....	Light gray.....	Medium-coarse.....	Quartz monzonite.....
Kirby (Burke quarry).....	.....	Light to medium gray.....	Medium-fine.....	..... do.....
Eyegate (Gibson, etc.).....	.....	..... do.....	Medium.....	..... do.....
Eyegate (Rosa quarry).....	Fine gray.....	Medium gray.....	Fine, inclining to medium.....	Biottite granite.....
..... do.....	Coarse gray.....	Medium bluish gray.....	Medium.....	..... do.....
Eyegate (Fraser quarry).....	.....	Light-medium gray (contrast marked).....	Medium-coarse.....	Quartz monzonite.....
Groton.....	Vermont blue.....	Medium quite bluish gray.....	Medium-fine.....	..... do.....
Topsham (Ricker).....	.....	Medium bluish gray.....	Medium.....	..... do.....
Barre (Jones, Wetmore & Morse).....	Light Barre.....	Light-medium slight bluish gray.....	Fine, inclining to medium.....	Biottite granite.....
Barre.....	Medium Barre.....	Medium bluish gray.....	Fine.....	..... do.....
Barre (Bond & Whitcomb, new quarry).....	..... do.....	Medium gray.....	..... do.....	..... do.....
Barre (Smith upper quarry).....	Medium Barre.....	Light-medium slight bluish gray.....	Fine-medium.....	..... do.....
Barre.....	Dark Barre.....	Light gray.....	Fine or fine to medium.....	..... do.....
Barre (Milne & Wylie and Jones Bros.' dark quarries).....	..... do.....	Dark-medium bluish gray.....	Fine-medium.....	Biottite granite, but quite a little plagioclase, and cuts light.....
Barre (Marr & Gordon).....	Very dark.....	Very dark bluish gray.....	..... do.....	Biottite granite.....
Cabot (Lambert).....	Dark.....	Dark bluish gray.....	Fine.....	Quartz monzonite.....
Calais (Patch).....	Medium gray.....	Medium slightly bluish gray.....	Medium.....	Biottite granite.....
Calais (Lake Shore Quarry).....	.....	Light-medium gray.....	Fine.....	..... do.....
Woodbury (Drenan & Webber, new quarry).....	Woodbury fine dark.....	Dark bluish gray.....	..... do.....	..... do.....
Woodbury (Robeson Mountain).....	Woodbury Bashaw.....	Dark bluish gray.....	Fine.....	..... do.....
Woodbury (Webber [old] Chase).....	.....	Medium gray.....	Fine-medium.....	..... do.....
Woodbury (Leach).....	.....	Light bluish gray.....	Medium-fine.....	..... do.....
Woodbury (Carter).....	.....	Dark bluish gray.....	..... do.....	..... do.....
Dummerston (Black Mountain).....	Dark blue.....	Light-medium bluish gray.....	Very fine.....	Quartz monzonite.....
Dummerston (Bailev).....	.....	..... do.....	Fine-medium.....	..... do.....
Dummerston (Bailev).....	.....	Medium bluish gray.....	Very fine.....	..... do.....
V. and/or.....	Green Ascutney, bronze vein green.....	Dark olive green.....	Medium-coarse.....	Hornblende-augite.....
Polished and Inscriptional.....	.....	.....	.....	.....

Monumental.....

tablets, is probably the noblest piece of granite carving to be found in any city.

It admits of the highest conception of the sculptor and is perfectly trustworthy for monumental use. Its beauty, richness and durability are unsurpassed. These facts account for the wonderful demand for it, and the marvelous growth of the industry. This granite centre of America must soon become the granite centre of the world. For while there may be as large single quarries worked for building purposes there is, probably, no section where the deposit is more extensive or accessible.

In the foregoing table taken from the Report of the Vermont State Geologist, 1909-10, all the granites in Vermont are grouped by their economic uses. The trade name, the scientific name, the real general color and shade (without reference to spots or spangles), and the texture of each stone are given in separate columns.

Dr. T. Nelson Dale's report, published in the United States Geological Survey, 1908, contains an exhaustive account of the granite quarries of New England, and of Vermont in particular. From this account I have taken many of the following facts:

The quarries of Caledonia County are located in the towns of Hardwick, Kirby, Newark, Ryegate and Groton. Besides the extensive properties of the Woodbury Granite Company at Woodbury, of which an account is printed in another part of this history, there also are quarries known as the Fletcher, Carter, Carson, Ainsworth, Drenan, Webber (new), Webber (main, old quarries), Leach and Chase. The Buffalo Hill quarry, operated by Hardwick Granite Company, was in Buffalo Hill, $2\frac{1}{2}$ miles from Hardwick, and was opened in 1887.

The town of Cabot adjoins that of Woodbury on the southeast and of Walden on the northeast. Lambert's prospect is in the northern corner of the township, on the east side of a north-south ridge, roughly about 4 miles east of Robeson Mountain in Woodbury and about 700 feet above Woodbury Pond. It is on the farm of Myron Goodnough, near the Walden line. Operator, Joseph Lambert, Macksville, Hardwick. The granite is dark gray. The quarry was opened in 1904, but little work has been done.

The town of Calais adjoins that of Woodbury on the southwest. The quarries are at Adamant (formerly known as Sodom) in the west corner of the town and 6 miles north-northeast of

Montpelier. The quarries lie along a N. 30° E. line on the south-east side of a granite ridge. The granite is a biotite granite of medium and light gray shade and fine texture.

The Patch quarry, opened about 1893, is within one-half mile of Adamant, in Calais. Operators, Patch & Co., Montpelier. The granite is "medium gray," is a biotite granite of medium, slightly bluish gray color and of even-grained medium texture. A more detailed account of this company is printed on another page.

The Lake Shore quarry, opened in 1902, is about 1,200 feet S. 32° W. from the Patch quarry. Operator, Lake Shore Quarry Company, Montpelier. The granite is "gray granite."

The Eureka quarry is about 900 feet N. 30° E. from the Patch quarry. Operator, Eureka Granite Company (Clark Sibley), Montpelier.

The quarries at Derby are all on Kirby Mountain, and include The Grout, operated by Carlton & Lake, of East St. Johnsbury; The Kearney, owned by the Kearney Hill Quarry Co., operated, 1906; The Burke, owned by the Burke Granite Co. (Incorporated), East Burke, and the Newark, controlled by E. H. Bugbee and W. S. Alexander of Barre, and H. D. Packer of Newark.

The Ryegate quarries are on the southwest and northeast sides of Blue Mountain. The granite is quartz monzonites and biotite, of light and medium more or less bluish gray color, and of medium, even-grained texture, and are used chiefly for bases.

The Gibson is owned by the Ryegate Granite Works, South Ryegate, opened in 1906. The Morrison is operated by D. A. Morrison & Co., South Ryegate, and was opened in 1900. The Italian is owned by the Caledonia Quarry Co., South Ryegate, and was opened May, 1907. W. S. Tupper & Co., South Ryegate opened their quarry, May, 1907, and the Rosa Bros., under the firm name of the Vermont Grey Granite Co., South Ryegate, operate a quarry that produce a fine gray and also a "coarse gray" stone. (See further particulars on another page.) It was opened in 1906. The Frazer (formerly known as Hall's) is owned by Mrs. Margaret Hinchey of Hydeville.

At Groton we find the Benzie quarry, owned by McCrae, Benzie & Co., which was opened in 1896. The color is "Vermont blue," and is of even-grained medium fine texture.

In Orange County the quarries are in Williamstown, but they

really are included with the Barre granites. Granite was quarried at two points in Topsham. One was very near the village of South Ryegate, the other on Pine Mountain about south-south-east of Groton. The Ricker quarry is at Topsham, and is owned by Isaac A. Ricker, Groton.

The Newport Granite Company's quarry is near the centre of the town of Derby, in Orleans County, and is owned by George R. Farquharson of Newport. It is a gray, even-grained stone of fine texture, and was opened in 1880. Another, the Parmenter, recently opened by W. H. Parmenter, produces a granite similar to "West Dummerston White."

The quarries included in Washington County are in Barre, Cabot, Calais, and Woodbury. Those of Williamstown, in Orange County, will be described in connection with those of Barre, as they belong to the same group and their granite is continuous and identical.

The city of Barre lies about five miles southeast of Montpelier and the Barre quarries are three miles further southeast, near the southeast corner of the township of Barre, and a few of them are in Williamstown, in Orange County, which adjoins Barre on the south. The city of Barre lies on Stephens Brook, a tributary of the Winooski, which empties into Lake Champlain. About half a mile south-southeast of Barre City this brook receives a tributary from the southeast, known as Jail River. Some $2\frac{1}{2}$ miles southeast of the city this river flows through a canyon-like gorge between flat-topped masses of sand, clay and boulders over 200 feet thick. A little north of Jail River at this point a roundish granite mass, known as Cobble Hill, rises to a height of 1,100 feet, by aneroid, above the city; and two miles about southwest of this hill and a little south of the river another granite mass, known as Millstone Hill, rises to a height of 1,200 feet, by aneroid, above the city. Fifty-six quarries are grouped about these two granite masses, and of these 52 are about Millstone Hill.

"Barre granite" is known commercially as "dark Barre," "medium Barre" and "light Barre," with some exceptional "very dark Barre" and "white Barre." It appears to be everywhere a biolite granite in which the orthoclase is considerably kaolinized and micaized, but the microcline is fresh. The specific gravity of "dark-Barre" and "medium Barre" is 2,672, and its crushing strength ranges from 14,968 to 19,957 pounds per square inch. "Barre



EMERY L. SMITH.

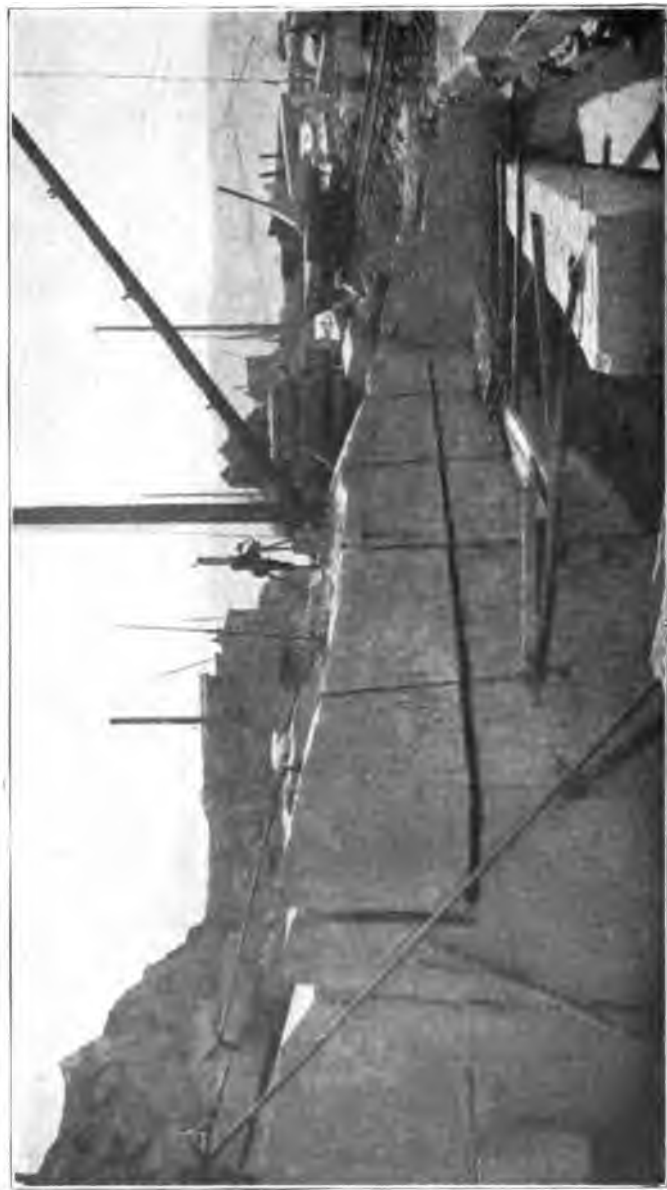


JOHN E. SMITH.

Firm of E. L. Smith & Co., Barre, Vt.



DONALD SMITH.



VIEW OF THE E. L. SMITH & CO.'S QUARRY, GRANITEVILLE, VT.



CUT BY NOVELLI & CALCAGNI, BARRE, VT.



PLANT OF SAMUEL GERRARD, BARRE, VT.

granite" is mostly monumental, but some is building granite. The light, medium and dark monumental stone, although brilliant in the rough, has weak mineral contrasts, but these are stronger on the polished face of the dark.

The Boutwell quarry is about south of the top of Millstone Hill. Operator, Boutwell, Milne & Varnum Company. The granite, chiefly "dark Barre" (but also some "dark medium" and "medium"), is a biotite granite of dark, inclining to medium, bluish-gray shade and of fine, even-grained texture, with feldspars up to 0.2 inch and mica to 0.1 inch. The quarry, opened about 1886, is somewhat T-shaped. The product is all for monumental use, and its market is general. A specimen of the product from all the quarries of this firm is the Joseph Smith memorial of South Royalton, Vt.

The Milne & Wylie quarry, also operated by Boutwell, Milne & Varnum Co., adjoins the Bruce quarry on the south. It produces the "dark Barre" stone, and was opened about 1887. The Empire quarry, opened about 1888, is southwest of the Milne & Wylie quarry and about south-southwest of the top of Millstone Hill, just north of the Williamstown line. Operator, Boutwell, Milne & Varnum Company. It produces the "dark Barre." The Marr & Gordon quarry is east-southeast of the Empire quarry and about south-southwest of the top of Millstone Hill. Operator, Boutwell, Milne & Varnum Company. "Dark Barre" is produced.

The Bruce quarry adjoins the Boutwell on the southwest and lies about south of the top of Millstone Hill. Operators, A. E. Bruce & Sons. The granite is "dark Barre." The quarry was opened about 1890.

The Bailey quarry is southeast of the Milne & Wylie quarry and about south of the top of Millstone Hill. The granite is "dark Barre."

The Barre Granite Company's quarry, opened about 1884, consists of two openings adjoining the Bruce and the Milne & Wylie quarries. Operator, Barre Granite Company. The granite is "dark blue."

The Anderson quarry, opened about 1892, is about S. 10 degrees E. of the top of Millstone Hill, 1,800 feet northeast of the Williamstown line. Operator, Granite City Quarry Company. The granite is "dark Barre."

The Stephen & Gerrard quarry is 600 feet north of the Ander-

son quarry and south to south-southeast of the top of Millstone Hill. Operators, Stephen & Gerrard. The granite is "medium Barre."

The Jones Light quarry is about northeast of the last and south-southeast of the top of Millstone Hill. Operator, Jones Brothers Company. The quarry consists of two openings. The product is used for rough and hammered face and carved monuments. The following specimen monuments combine the product of this quarry with that of the firm's dark quarry. Ohio and Iowa state soldiers' monument, Chattanooga, Tenn.; Governor Curtin monument, Bellefonte, Pa.; state soldiers' monument, York, Pa.; Hearn monument, Woodlawn, N. Y.; Rouse mausoleum, Winchester, Va.; Kruger mausoleum, Newark, N. J.; Gary mausoleum, Wheaton, Ill.

The Barclay quarry is the S. 35 degrees W. continuation of the large Jones Light quarry. Operators, Barclay Brothers. The granite is "light Barre." The firm owns also another quarry in line with this, the "Sunnyside." The product is used for monuments and memorial chapels. Specimens are the Robert Burns statue and pedestal, Barre; First North Dakota soldiers' memorial, St. Paul, Minn.; Indian massacre memorial, Serena, Ill.; Wade memorial chapel, Cleveland, Ohio; Hancock (canopy) memorial, San Francisco, Cal.; Doctor Kimball memorial, Concord, N. H.; General Thomas (shaft) memorial, Springfield, Ohio; Senator Dillon shaft, Davenport, Iowa. (See further particulars in an article on another page describing this business.)

The Acme granite quarry is about 600 feet west-southwest of the Jones Light quarry. Operator, C. N. Scott, East Barre. The granite is "dark medium Barre." It has two openings, the smaller of which made in 1905, is alone now in use.

The Wetmore & Morse quarry, 1,007 feet above the city, lies in a saddle about south-southeast of the top of Millstone Hill, and about 200 feet below it. The product is used for monuments, 75 per cent. of it reaching the market through local cutting sheds. Specimens: The J. D. Rockefeller monument at Cleveland, Ohio. A fuller account of this firm is published in this volume.

The Smith Upper quarry, southwest of and below the last, is S. 32 degrees W. of the top of Millstone Hill. Operators, E. L. Smith & Co. The granite is "light Barre." The product is monumental stone. Specimens of monuments from all the quarries of E. L. Smith & Co. are: Pedestal of equestrian statue of St. Louis, erected by W. R. Hodges in 1906, and Lemp mausoleum, St. Louis,

Mo.; Cluett obelisk, with 44-foot shaft and pedestal, Troy, N. Y.; Smith obelisk, Old cemetery, Barre; the stone for Fleischmann mausoleum, Cincinnati. (See further particulars on another page.) The Duffee quarry is west-northwest of and lower than the Smith Upper quarry and southwest of the top of Millstone Hill. Operators, E. L. Smith & Co. The Smith Lower quarry is west-northwest of the Duffee quarry, near the foot of the hill. Operator, E. L. Smith & Co. It produces "medium Barre," but also yields some "dark."

The Sanguinetti quarry is about three-fifths mile north of the top of Millstone Hill. Operator, Joseph Sanguinetti.

The Bond & Whitcomb quarry, opened in 1902, is N. 40° E. from the top of Millstone Hill and 200 feet below it, or 1,000 feet above the city. Operators, Bond & Whitcomb. It is a "coarse light Barre." A newer opening produced a "medium Barre."

The Barney quarry (formerly known as the Eclipse) is 360 feet north-northeast from the last and about N. 35° E. from the top of Millstone Hill. Operator, Augusta Barney, Websterville. The granite is "medium and light Barre."

The Canton quarry is about 450 feet east-northeast from the Bond & Whitcomb quarry and northeast of the top of Millstone Hill. Operator, Barre Granite and Quarry Company. The granite is "medium and light Barre." The product is used for monuments. Specimen: The soldiers' monument at Trenton, N. J. A more extended report of this firm is printed on another page.

The O'Herin quarry, opened in 1904, is about 500 feet N. 35° E. of the Barney quarry, and in about that direction from the top of Millstone Hill. Operators, Robert O'Herin & Co., Websterville. The granite is "light Barre."

The Walker quarry is east-southeast of the O'Herin quarry and N. 40° E. from the top of Millstone Hill. Operators, George Walker & Sons. The granite is "medium Barre." The quarry was opened in 1902.

The Wells-Lamson quarry, opened in 1885, is 640 feet above the city and about northeast from the top of Millstone Hill. Operator, The Wells-Lamson Quarry Company. The granite is "light and medium Barre."

The Pruneau quarry is N. 75° E. from the top of Millstone Hill. Operators, Pruneau & Co., Websterville. The granite is "dark medium."

The Consolidated Marr & Gordon quarry is 860 feet above the city and N. 75° E. from the top of Millstone Hill. Operator, Consolidated Quarry Company. The granite is "light Barre." The McDonald & Cutter quarry is east-northeast of top of Millstone Hill, east of the main street of Websterville. Operator, Consolidated Quarry Company. The granite of this and the four adjoining quarries of this firm is mostly "light Barre" with some "medium." The Innes & Cruikshank quarry is about 100 feet north-northeast of the last. Operator, Consolidated Quarry Company. The Capital quarry is 750 feet south-southeast of the McDonald & Cutter quarry and southeast of Millstone Hill. Operator, Consolidated Quarry Company. The Couyellard quarry is about 200 feet southeast of the McDonald & Cutter quarry and southeast of the top of Millstone Hill. Operator, Consolidated Quarry Company.

The McIver & Matheson quarry is about 1,500 feet east-southeast of the Websterville main street and in same direction from the top of Millstone Hill. Operators, McIver & Matheson. The granite is "light and medium Barre."

The Manufacturers' quarry, south of and adjoining the last, is in Barre. Operator, Manufacturers' Quarrying Company. The granite is "medium Barre."

The Barre quarry, opened in 1905, is N. 40° E. from the McIver & Matheson quarry, 800 feet northeast of the southern road from East Barre to Websterville, and about four-fifths of a mile east of the top of Millstone Hill. Operator, Barre Quarry Company. The granite is "light and medium Barre."

The Milne quarry is on the south side of the southern road from Websterville to East Barre and about nine-tenths of a mile east-southeast of top of Millstone Hill. Operator, Alexander Milne. The granite is "light and medium Barre."

The Barre Medium quarry, opened in 1906, is about 500 feet southeast of the Milne quarry. Operator, Barre Medium Granite Company. The stone is "medium and light Barre." It is used for building and monuments; specimen of the "light," the trimmings in the Aldrich Public Library, Barre.

The Empire Granite Company's quarry, opened in 1889, is about 800 feet east-southeast of the Milne quarry on the north side of the southern road from Websterville to East Barre. Operator, Empire Granite and Quarrying Company, Northfield. The granite is "light and medium Barre."

The Straiton quarry, opened in 1905, is 400 feet east of the last, and about 1 1-4 miles east-southeast of the top of Millstone Hill. Operator, George Straiton Quarry Company. The stone is "light and medium Barre." A further account of this firm may be found in this volume.

The Jones Dark quarry, opened in 1886, is in Williamstown, but adjoins the Empire quarry. The granite is "dark Barre." Jones Small Dark quarry is over 100 feet S. 20° W. from the last, in Williamstown. This is an old opening which was being worked anew in 1907. Operators, Jones Brothers & Co. The granite is identical with that of the last quarry.

The Pirie quarry, opened in 1882, is in Williamstown, nearly 1 1-2 miles south-southwest of the top of Millstone Hill. Operator, James K. Pirie, Graniteville. The granite is "dark Barre." A detailed account is published on another page.

The Wheaton quarry is 2 1-8 miles east of the city, 620 feet above it and north-northwest of the top of Cobble Hill. Operator, Barre White Granite Company. The granite is "white Barre."

The Wildbur quarry is on the west side of Cobble Hill, 600 feet above the city and N. 35° E. from the top of Millstone Hill. The granite is "light Barre."

The Bianchi quarry is on the west side of Cobble Hill near its southwest end, about 600 feet above the city (southwest to Bond & Whitcomb quarry on Millstone Hill). Operator, Charles B. Bianchi. The granite is "light Barre." Further particulars are on another page.

The Hyland quarry is on the west side of Cobble Hill, a little north of the Wildbur quarry and at the same level. It was opened in July, 1907.

The Dummerston granite area lies 5 and 6 miles north-northwest of Brattleboro. The quarries and prospects are in the southwest part of the town on the sides of Black Mountain and also half a mile south-southwest of it. Black Mountain is on the east side of West River, 4 miles west of Connecticut River. This is a roundish granite mass, probably of dome structure, a square mile in area and from 900 to 950 feet above West River and 1,269 feet above sea level. The granites of Dummerston are quartz monzonites of very light gray and light-bluish-gray shade and of even-grained medium or medium inclining to fine texture.

The Black Mountain quarry, opened about 1877, is at the south-

west foot of Black Mountain, three-fourths mile south-southwest of the village of West Dummerston, in Dummerston and 5 miles north-northwest of Brattleboro. Operator, George E. Lyons Company, West Dummerston. The granite, of two sorts, chiefly "West Dummerston white," is transported by two sidings from the Vermont Central Railway. Stones for finishing are shipped to the firm's cutting plant at Monson, Mass. The product is used for buildings, monuments and street work. Specimens: Postoffice at Troy, N. Y.; Diamond Bank, Pittsburg, Pa.; McFadden Building, Chicago, Ill.; Royal Baking Powder Building and Plaza Hotel, New York.

The Clark quarries are east of West Dummerston village, on the northwest side of Black Mountain. Operator, James Clark, West Dummerston. The granite from the lower quarry is a quartz monzonite of very light gray shade.

The quarries of Windsor County are in the towns of Bethel, Rochester and Windsor. In Bethel the granite is on Christian Hill, an elongated mass rising about 350 feet above the adjacent hollows, about 2 miles north of Bethel village and east of White River. It is spoken of in the review of the Woodbury Granite Company printed in another part of this book.

The Ellis quarry is on the east side of Christian Hill, about 2 miles north of Bethel village in Bethel township. Operator, E. B. Ellis Granite Company, Northfield. The quarry, permanently opened in 1902, but in a small way many years earlier and abandoned, has not been operated for some time.

The Liberty Hill quarry is 3 miles south of Rochester village (the west terminal of the White River Valley Railroad) and on the Rochester-Pittsfield town line. The outcrop extends in the town of Pittsfield in Rutland County. Operator, Liberty Hill Granite Corporation, Rochester. The granite, "coarse white," is a quartz monzonite of slightly greenish-white color.

Mount Ascutney lies about 5 miles southwest of Windsor village and rises 2,800 feet above the Connecticut and 3,100 feet above sea level, consists mainly of a mass, about 2 1-2 miles square, of greenish hornblende-augite granite (syenite) intrusive in schists which crop out along its base. This granite was formerly quarried and monuments of it can be seen in the Windsor Cemetery. "Windsor granite" is a hornblende-augite granite which, when first quarried, is of dark bluish-gray color, but after very brief exposure becomes dark olive green.

The Mower quarry is on the west side of Mount Ascutney, nearly 1 1-4 miles south of Brownville and 580 feet above it, in West Windsor. Operator, Ascutney Mountain Granite Company, Windsor. The granite has received the trade name of "bronze vein green." The opening was made in 1906. The product is used mainly for dies, wainscoting and indoor columns. Specimens: The two monolithic sarcophagi in the McKinley mausoleum at Canton, Ohio.

The Norcross quarry is on the north side of Mount Ascutney on the 13,500-foot level, about 950 feet above Windsor village, and a little over a mile east-southeast of Brownsville in Windsor. Operator, Windsor Green Granite Company, Worcester, Mass. This quarry is only operated occasionally. The product has been used for monumental and decorative purposes. Specimens: Sixteen polished columns in Columbia University Library, New York; monument to General Gomez in Cuba; a die in the Bennington monument; 34 large columns in the Bank of Montreal and the W. C. T. U. fountain, Orange, Mass.

CHAPTER XII.

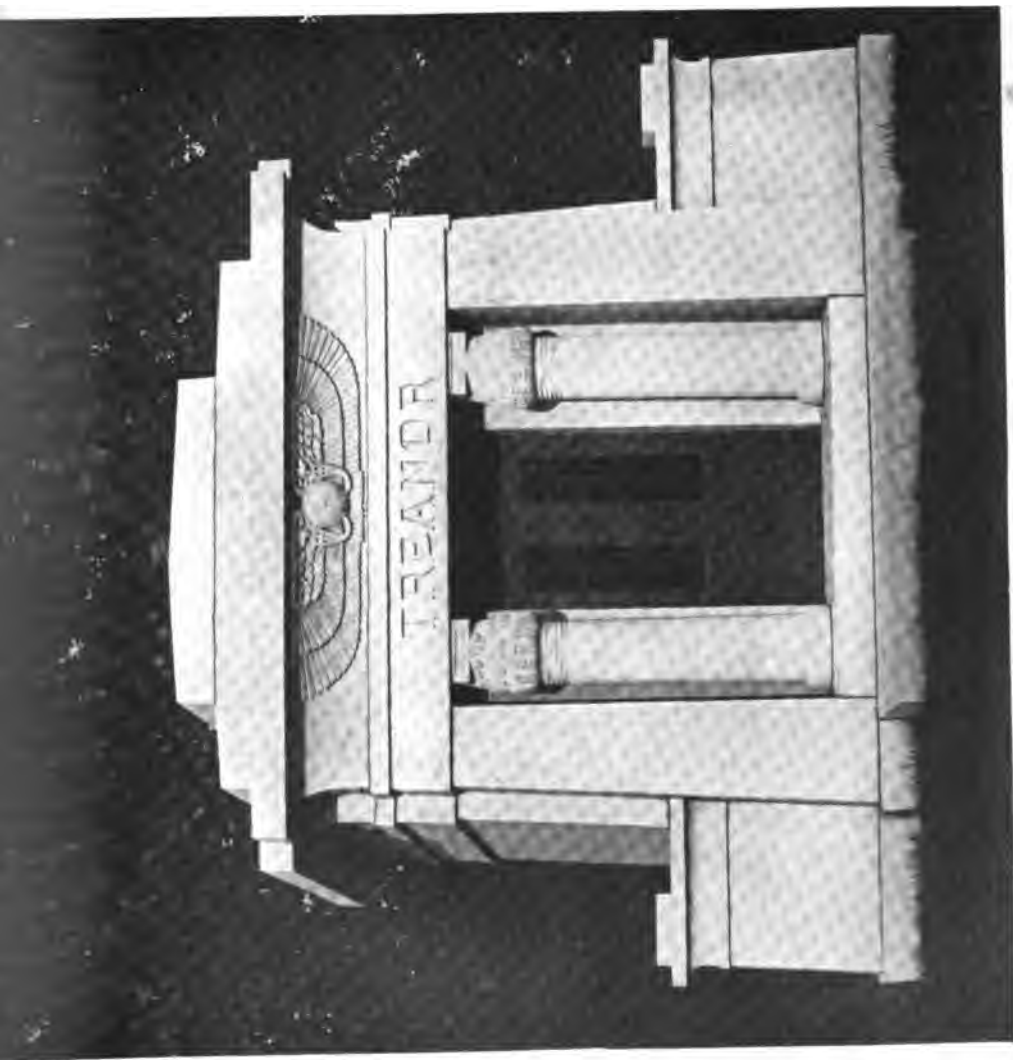
ORIGIN OF THE GRANITE INDUSTRY IN BARRE.—INTERESTING FACTS
REGARDING THE EARLY MANUFACTURERS.

THE granite industry at Barre is of comparatively recent development. As far back as 1833 blocks of stone were drawn by ox teams to Montpelier to furnish the granite columns of the capitol, but the period of active work on Millstone Hill dates back only a score of years. It was the order for ten million paving blocks for the city of Troy which first stimulated activity on the hill. When the State House at Montpelier was built the prophecy was made, "This is the last structure that will ever be built of Barre granite, and the last load that will ever be drawn from Harrington Hill." That locality is the present site of Graniteville, where nearly 3,000 quarrymen reside.

The early quarrymen were Robert Parker, Thomas Courser and Abijah Abbott, and their work consisted of rough stock such as underpinning, doorsteps and fence posts, as well as of hammered work, samples of which is remembered as being in the old Bank Building and the Dr. Robert Paddock house, built in 1814.

Millstone Hill received its name from a really superior quality of Millstone which furnished the larger part of the great mills of New England and Canada. In 1824 Barre had three such mills, two of which were "recond among the best in the state, one having three and the other four run of stones." Similar stones were quarried from Cobble Hill, but the name seems to have been derived from the traditional breaking of the devil's apron strings and the dumping of his cobbles at this place.

Robert Parker is deemed the earliest worker in granite in Barre. He was a soldier of the War of the Revolution, and took an active part in the Battle of Bunker Hill. One of his associates in business was Thomas Courser, who had a son Thomas, and grandson, Merrill. It is believed that these two stonecutters, Parker and Courser, opened the first quarry in town,



CUT BY ROBINS BROTHERS, BARRE, VT.



PLANT OF ROBINS' BR OTHERS, BARRE, VT.



CUT BY CHIOLDI BROTHERS, BARRE, VT.

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PLANT OF EUGENE C. GLYSSON, BARRE, VT.



VICKSBURG SOLDIERS' MONUMENT, CUT BY GEORGE STRAITON, BARRE, VT.



The Late
CHARLES W. McMILLAN.



CHARLES W. McMILLAN, JR.

Firm of Charles W. McMillan & Son, Barrre, Vt.



WILLIAM MILNE.



ALFRED C. SIMPSON.





PLANT OF THE BARRE MONUMENTAL YARD, BARRE, VT.

later known as Wheaton's, and that they were not only the first quarrymen but also the first manufacturers of Barre granite. Mr. Parker died in 1834 at the age of 75 years, and there is a granite monument over his grave in Barre Cemetery. The inscription is on a marble tablet imbedded in one face of the die. The monument is the work of his son, John Parker, who with his son-in-law, Eliphalet Hewett, succeeded to his business. They had learned their trade of him, about 1827, and the following announcement shows the variety of work which they manufactured, and is an evidence of their sagacity and business enterprise. It also furnishes the reader a copy of the first paid newspaper advertisement of Barre granite:

CUTTING GRANITE.

HEWETT & PARKER

I WOULD respectfully inform the public that they continue to cut granite stone in that extensive quarry, of superior granite, situated about two miles southeast from Barre lower village. Also they cut granite in Marshfield, three miles from Plainsfield village, on Onion River. Their granite in Marshfield is a beautiful dark color; they calculate to keep stone of all descriptions at both of their shops, hewn and rough, to supply any call at short notice, hewn in the best order; viz., underpinning, door-steps, sills, tops, pillows and circles, window tops and sills, hearth and stone tops, manteltree pieces and tombstones, post-tops and balls, jet stone, grist and oil mill stones, cut to any pattern at short notice. Gentlemen wishing to purchase any of the above stone will do well to call at their shops and examine their work, granite and prices before they purchase elsewhere. All pieces of granite they sell for clear stone, that is rusty or will rust, they pledge themselves to forfeit.

They have on hand 275 sets of window caps and sills, 20 or 30 posts, 10 with caps and balls, 8 sets of door stones, from 5 to

9 feet long, common width, all cut in the best manner, all of which will be sold cheap for CASH.

Credit given if requested.

ELIPHALET HEWETT.

JOHN PARKER.

Barre, Feb. 16, 1834.

33. 1 yr.

In 1828 they furnished the hammered granite for the Centre Lamb residence near the Avenue House, later owned by the French estate, and from that time they supplied the cut granite trimmings for many of the brick houses which form so substantial an evidence of the industry and good fortune of the older and former citizens of the town.

Smith Sherman, son of Jonathan Sherman of Barre, and Thankful Smith of Norwich, N. H., was born February 29, 1796, and was for many years a marble dealer in Barre. He removed to Montpelier, remaining there three years and continued in the same business there with Moses Jackman, removing to Castleton, Vt., in October, 1834, and there commenced the then new business of opening the marble quarries of Rutland, which have since become so noted over the world. They carted the marble blocks to Castleton, where they had built mills, to be sawed; then conveyed them to the canal at Whitehall to be shipped. His brother, Lycurgus, and son, Theodore, were connected with him in the marble business.

Major Lemuel Abbott, U. S. A., called attention to the fact that Abijah Abbott, his grandfather, was one of the earliest quarrymen at Millstone Hill. When his father, R. F. Abbott, sold his brick tavern at Jackman's Mills in 1834, he built a brick blacksmith's shop and stone shed on what was afterwards the site of French's Block, where he cut granite for many years. Emery Fuller, father of Enos Fuller, drew the granite from Millstone Hill, where Mr. Abbott afterwards had a residence and stone shed. Major Abbott remembered when a boy of seeing his father engaged in transporting a large monument from Barre to Burlington in mid-winter. It was made by him to be placed in Elmwood Cemetery, to the memory of Rev. James

Marsh, who was the first president of the university. The base of the monument was six feet four inches by six feet five inches, by one foot eight inches, and the shaft, two feet six inches by ten feet six inches, by twenty feet high. "It took at least thirty pairs of horses and oxen to draw it the fifty miles, and these teams were gathered from far and near. The entire weight of the load was 15 tons."

The monument in Barre Cemetery at the grave of Charles Keith, who was killed accidentally at the quarry, was made by Mr. Abbott, and one in the Wilson Cemetery, at the grave of John Thompson, was made by his sons, Charles and Roy. Orvis A. Barnes made one similar, and placed it at the grave of his father, Apollo Barnes. Mr. Abbott is buried in the same cemetery.

Richard Flagg Abbott was born in Barre, June 3, 1799, and died June 2, 1858. He was a son of Abijah Abbott of Holden, Mass., and Abigail Cutting of Worcester. At his father's death he was 23 years of age, and sole support of a large family. For a few years previous to his marriage he kept a public house at East Barre, but this was destroyed by fire, and he removed to the old homestead formerly occupied by his father. He married Mary, daughter of Jacob Norris of Washington, Vt., about 1832.

Shortly after he commenced the development of the Barre granite quarries, and became quite an extensive contractor, conducting a business that would even now be considered a comfortable one. His shop, which was opposite the old house, was often crowded with workmen, and many of the old time granite men lived to see the industry flourish extensively. On extra occasions, when a large monument or stone of any kind was to be moved, Mr. Abbott found it quite difficult to obtain means of transportation, owing to the fact that the devices for handling large stones were very inadequate. Very large undertakings were usually left for winter, strong sleds being especially made for the purpose, and when farmers being less occupied and desirous of obliging a man they liked, could more easily be obtained. As many as thirty or more oxen and horse teams would sometimes be required, and on such occasions they were gathered from different parts of Barre and the adjoining towns. Mr. Abbott was an able man, of good presence and address, and was

indefatigable in trying to introduce Barre granite outside of Vermont. He spent no little of his time and means in such a way. He tried hard to have it used for the New York State Capitol, as well as for other great enterprises, and there were probably few contractors of his day who would care to venture in such large undertakings. It must not be understood that he intended to furnish the granite himself alone but he tried to interest capitalists in such an undertaking.

Ira P. Harrington worked for R. F. Abbott, and got so well acquainted with the business that in 1848 he became a dealer and manufacturer. His quarries came at last to include the one where S. G. Richardson, and that of his employer, Mr. Abbott, had worked. One of his largest jobs was the Ethan Allen monument in Green Mount Cemetery, which, with the statue surrounding it, is fifty feet high. The base is eight feet square, and the diameter of the column four and one-half feet. The work was done in 1857, and for the complete job erected in the cemetery Mr. Harrington received \$2,000, and, of course, was a loser by the transaction. The cutting was done by Daniel Hewett, a nephew of Eliphalet Hewett, and William Morrill. They received \$1,000 for their work. Mr. Harrington's stone shed was near his quarry, and only a short distance east from the Harrington homestead, later occupied by George Wheeler. He was active in conducting negotiations with the builders of the new capitol at Albany, and it is probable that a part at least of this immense job would have been secured by him had it not been for the sudden death at that time of Dean Richmond.

He built the soldiers' monument in Rochester, Vermont, furnished much of the hammered work for Goddard Seminary and placed a number of fine monuments in many cemeteries. He died May 18, 1882, at the age of 58. A granite shaft in Wilson Cemetery marks his grave.

A. M. Jackman, on November 2, 1903, on his 90th birthday, wrote to the "Barre Times" as follows: "In looking over the Historical Souvenir of Barre, published in 1894 by Nickerson & Cox, in naming the early settlers of Barre, it says that 'William Bradford came from Mount Vernon, N. H., in 1800, and located on the farm now occupied by L. L. Worthen. He died in 1866 at the age of 86 years, and during his life was a well known

teamster, hauling freight between Montpelier and Boston.' I think the foregoing is correct. The souvenir then continues and says that 'Mr. William Bradford took the contract to furnish the granite for the building of the State House at Montpelier, which stone he drew from the Wheaton quarry.' The above six lines are not facts, as I can show you hereafter that Mr. Bradford did not take the contract to furnish granite for the State House at Montpelier. After the legislature had decided to erect a granite State House they advertised for bids to furnish a certain number of cubic feet of granite sufficient to lay the walls of the building. The bids were to be made by the cubic foot. Col. Nathaniel Sherman, then a farmer residing on the West Hill near Peck Pond, Col. Davis Harrington and Richard F. Abbott took the contract to furnish the granite for the walls of the building. The granite was quarried in the quarries near what is now called Websterville, and then were owned by Col. Davis Harrington, who was a farmer, whose farm, the most of which was located a short distance from the quarry. The upper part of the quarry belonged to Richard F. Abbott, formerly owned by his father, Abijah Abbott, who was one of the early granite workers in Barre, and I think is now owned by the Wells & Lawson Company. [1911, Jones Brothers' Company.]

"They were the first and only quarries worked in Millstone Hill at the time. The Bradfords took the contract for drawing the granite for the walls of the building by the cubic foot from their quarries to Montpelier, but I don't know at what price, but I do know it was a losing job. The Bradfords were not granite men but were teamsters and farmers. The father and Rodney, the oldest son, did all the freighting to Boston for Montpelier and Barre, as there were no railroads then, and the traveling and carrying the mails was all done by stage coaches, each drawn by six bay bob-tailed Morgan horses, that you could not tell one from the other.

"Ambrose Bradford, the third son of William, and father of William A. and Mrs. Newcomb Ketcum, both residents of Barre City, took charge of drawing the granite from the quarries to Montpelier, and late in the fall of 1833 rented rooms in the house then called the Willard Hotel, located on the premises where the Horace Fifield Buildings are now located, and moved his wife and furniture sufficient to convene himself and wife and

two hired men or boys to drive teams. He also took down twelve horses and three double traverse sleds, and the snow began to fall about as soon as he was ready for it.

"His hired men were Western Averill, the father of John W. Averill, and the writer, whose 21st birthday was to be the second day of the next March, thought that he would earn a little money to purchase his freedom suit, in lieu of going to school was the other man or boy. Our day's work began early in the morning, our horses were fed and harnessed ready to hitch to the sleds before breakfast. We had our breakfast regularly at 5 o'clock, then we started for the quarries, where we loaded our sleds and returned home to dinner and fed our horses. After dinner we started for Montpelier with our load of granite, unloaded it and returned to Barre; when we had our supper and our horses cared for it would be about 9 o'clock.

"The only way to get to these quarries in those days was to go to the upper village and up the Stirling Hill, which is very steep, and on the east side and near a very deep gulch, and it was necessary in order to get down the hill safely with our heavy load of granite to chain or clog each runner and have an extra pole to each of our sleds, that the four horses could help in holding back our heavy loads, and we were very thankful when we were safely at the foot of the hill.

"I have stated the Bradfords were not granite men, and I will tell you how they lost money on the contract to draw the granite for the State House. Before they made a bid for the contract they had a cubic foot of granite cut and weighed, and on the weight of that cubic foot the bid was made for the contract, expecting to be paid the price bid for every cubic foot of granite they drew to Montpelier. The granite on the quarry were in blocks of different sizes, some larger and some smaller, and were in piles scattered over the quarry. Each block had its number of cubic feet marked on it, the contract for cutting the granite was by the cubic foot measured after cut and ready to be laid in the walls; the result was that the Bradfords drew hundreds of cubic feet for which they received no pay, and there is where they sustained their loss."

Mrs. Adaline (Richardson) Bullock, of Montpelier, said that her father and Col. Nathaniel Sherman were associates in taking the contract to furnish 23,000 cubic feet of granite for the walls of

the Vermont State Capitol, the price of the stone delivered in Montpelier being 20 cents per foot. This was corroborated by a letter from Alson S. Sherman, of Chicago, who had charge of the active work for his father (Col. Nathaniel Sherman), as he was younger and understood the details of the work thoroughly.

Capt. William Bradford and his son, Ambrose, agreed to draw the stone for 8 cents a foot, and the cutting was done by Watrous and Carlos Bancroft. The prices seem absurdly small to dealers of today, who receive from 70 cents to \$1 per cubic foot at the quarry, and they proved ruinously low for the contractor of 1832, as the entire job was a losing one.

Joseph Glidden and his son Mark drew some of the stone, and their days work is thus described: At 4 o'clock in the morning they left their home, now the Will Batchelder farm, with a team of four horses and a yoke of oxen, drove to South Barre, up the Sterling Hill to the quarry, where, with the aid of skid and rollers (they had no derricks) the load was put on. They then drove to Montpelier and unloaded, getting home at 10 o'clock at night. From the eighteen hours work and twenty-five miles journey they received \$4.

Dr. B. F. Sherman, of Ogdensburg, New York, was one of the drivers of a four horse team for Capt. Bradford at that time, and he received the munificent sum of \$10 per month. Good stone cutters then received \$1 a day. Mr. Bullock is quite sure that the state never made good any part of the loss sustained by the manufacturers in the transaction. But while they failed to secure for themselves material prosperity, they builded better than they knew by furnishing material for what was then considered an elegant and enduring structure, and at the same time contributing to the prosperity and growth of their native town.

When in 1837 the Capitol was completed, it was pronounced the finest in the United States, and called forth loud praise for the high grade of granite used in its construction. Twenty years later the stone received a most trying test by the burning of the interior, but with the exception of a few window caps and other pieces exposed to the most intense heat, no part of the walls required to be replaced by new material. They have withstood the power of the elements and the ravages of time to a marvelous degree.

Oren Wheaton, son of Pliny and grandson of John, learned the trade of granite cutting from John Parker in Gospel Village, and with his father owned and worked the quarry at Cobble Hill for

many years. From 1833 to 1837 the State of Vermont paid Mr. Wheaton \$100 per year for the stock needed in building the Capitol at Montpelier. The large pillars, the foundation and underpinning, the window caps, sills and cornice were taken from this quarry by men furnished by the state, while the ashler used in the walls were quarried from Millstone Hill.

In 1840, Pliny Wheaton built the first granite house in town, and his son Oren prepared the material from the quarry on his farm. All the blocks were split and squared ready for use in 100 working days at a cost of \$100. Later it became the residence of Mr. Charles Wheaton.

Pliny Wheaton furnished the cut granite for the Congregational Church in 1840, and for the Court House in Montpelier in 1844, and with Mr. Hewett, the material for Barre Academy in 1851. In 1842 Eliphlet Hewett took the contract for making a monument from the same quarry for Judge Paine of Williamstown. It was made with two large bases, which with the shaft weighed 14 tons, and it cost \$500.

Oren Wheaton died December 6, 1861, at the age of 49, and a monument of granite marks his resting place. His son, Pliny Oren Wheaton, was the owner of 70 acres of quarry land, and he manufactured all kinds of building material. It was light gray, strong and durable, and so easily split that pieces for underpinning were obtained which measure eight inches thick, three feet wide and 30 feet long. Mr. Wheaton furnished the dressed stone for the present Congregational and the Catholic churches, the Spaulding High School and the Wood, Bolster and Worthen Blocks.

John Parker died March 26, 1866, aged 60 years, and Mr. Hewett, in 1884, at the age of 82. On the southeast side of Cobble Hill was an abandoned quarry, which was opened about 1842 by Samuel and John Wilson. At Jackman's Mills, near East Barre, the Carnes Brothers began quarrying light stock. Samuel T. Richardson was a granite cutter in South Barre in 1827, and is said to have cut the stone used in building the Newell Kinsman house in that year. He was born in Barre, in 1798, and spent his days there. His stone shed was opposite the old schoolhouse which stood at the foot of Sterling Hill, and among his workmen were John Wilson, father of Newton; Hiram Jones, who married a sister of Allen Wood, and David Adams, who was familiarly known as "Anti" Adams, because of decided anti-masonic opinions. Mr. Richardson



CUT BY VANETTI GRANITE COMPANY, BARRE, VT.



PLANT OF YOUNG BROTHERS COMPANY, BARRE, VT.



PLANT OF BROWN & CARROLL, BARRE, VT.



CUT BY THE STAR GRANITE COMPANY, BARRE, VT.



ARON GUSTAFSON

Firm of Johnson & Gustafson, Barre, Vt.



CUT BY EUGENE A. CARUSI, BARRE, VT.



AGNES LA ROCHELLE
THEODORE LA ROCHELLE

THEODORE DESSUREAU
NELSON LA ROCHELLE

Firm of Dessureau & Company, Barre, Vt.



CUT BY MALNATI BROTHERS, BARRE, VT.

was builder of the first public tomb in Barre, and in 1836 made a monument to the memory of Hon. Denison Smith, an able lawyer and jurist. In 1831 Mr. Richardson made mill stones for a large grist mill in Wentworth, N. H., and in 1833 supplied the stone for Joshua Thwing's dwelling house and large machine shop at Thwing-villa, the first in the State for the turning and the finishing of iron, as his foundry of 1818 had been the first to melt it.

Daniel Hewett perhaps cut stone in Barre longer than any other man. He learned his trade in 1840. Beside the Ethan Allen pedestal he cut the one in the college campus at Burlington for the statue of General Lafayette. Judson T. Parker learned stone cutting from John Parker, his uncle, in 1846, and resided on Hill street, Barre. John E. Parker, a son of John, and brother of Wallace, was for many years a stone cutter and dealer in granite. In 1867 he cut the monument now at the grave of David French, 2nd, and some of the trimmings for Stoddard Seminary. In 1870 he built a small shed on North Main street near the site of the four tenement houses which he erected later, and where he continued the business until his death.

Joshua Trow went to Barre in 1868, and for a time had a small stone shed on the Common, near the cemetery, and afterwards lived in the old red house on Hill street. The more modern monuments of the Barre Cemetery were cut by John Parker in the basement of his house in Gospel Village, previous to 1866. At the same time, Samuel Wilson had a granite shed opposite the main entrance to the cemetery.

The Joshua Thwing monument was cut in a shop owned by Artemas Miller, in North Main street, which was used until 1873. H. H. Wetmore had a shed near his residence in Thwingville at the same time, where were made the monuments of Robert Hayes and L. L. Wheelock.

In September, 1865, John S. Collins went to Barre, and worked three years for Ira P. Harrington. In December, 1868, he brought his family, built a small shed at the foot of Hill street, employed several men, and sent out some good monuments, among them being those of George Camp in Orange, Aaron King in Tunbridge, and James Kinney in Barre.

George W. Mann opened the Duffy quarry in 1879, on a part of the Parker farm, and it proved to be of superior quality. He also built a small shed on Brooklyn street, where he cut stone many years, and finally moved to larger quarters. He

afterwards bought several acres of the Harrington farm, which he worked as a quarry.

In 1881, James Gazely of Albany, N. Y., and E. L. Smith purchased the remainder of the Parker farm, and later George F. and Stillman C. White of Rutland, part of the John Bigelow farm; H. N. Parkhurst a few acres of the Eastman and Harrington farms, and Cutler Brothers, the Hiram Martin sheep pasture. From the last named and the George Abbott farm were opened the quarries of Marr & Gordon, Barclay Brothers, Empire Granite Company, James R. Langdon, Milne & Wyllie, Chas. H. More & Co., and Vermont Granite Company. John S. Collins opened a quarry on the W. Z. Pratt farm, which is now owned by the Jones Brothers Company. The E. L. Smith & Co.'s lower quarry and Vermont Granite Company's dark quarry were part of the Holt farm. Wells, Lamson & Co. opened their quarry on fifteen acres of an abandoned farm belonging to S. W. Flint, while William Carnes and J. Henry Jackson opened a quarry on eight acres adjoining them.

In 1883 Hamilton Webster bought about ninety acres of quarry land from the Harrington estate, as well as the quarry land near it owned by the heirs of Flagg Abbott, so that two of the oldest quarries in town were in his possession. The light stock quarry of Wells, Lamson & Co. is from the Eastman farm on the north side of the hill, and that of E. C. Tayntor & Co. is farther east and taken from the Louis Keith farm. Near the latter is the old quarry of Kelligher & Barclay, and that of the Excelsior Granite Company. The Adeline Wheeler farm was later owned by the Green Mountain Granite Company; the Harvey Magoon place by Littlejohn & Milne; and the Cheney farm furnished quarries for James Brown, I. H. Cheney, William Carnes, and Wallace G. Parker.

The growth of Barre is, perhaps, best illustrated by the United States Census returns from 1830 to 1894, which show the fluctuations in the matter of population previous to the establishing of their present industry, and the growth up to the latter period better than other means. In 1830, the town numbered 2,012; in 1840, 2,126; but in 1850 it had fallen off 281 and was only 1,845. In 1860 it was still less and numbered only 1,839. In 1870 it had slightly increased, and was 1,882, and in 1880 the town numbered 2,060.

Before taking the census of 1890 the town showed a population of 6790, the greatest growth ever recorded during the same space of time for a township for Vermont. In 1910 it was over 12,000.

The healthfulness of the town and the charm of its scenery, the business energy of its manufacturers, and the superior quality of their products, form a combination of attractions that should be considered by those seeking to invest capital.

Probably the start was given to the development of the granite business by the extension of the Central Vermont railroad from Montpelier to Barre, which was built in 1875, being opened to travel with a grand celebration July 4, 1875. The town gave \$50,000 and a passenger depot in aid of the construction of the road. In 1888, the citizens subscribed \$40,000 to build a road from the city to the granite quarries, called the Barry Railroad. D. R. Sartwell, president of the Montpelier & Wells River Company (which entered the town earlier) furnished the remainder of the funds, and the first train was run to the quarries in December, 1888. The Barre Railroad is noted in New England for being the steepest where no cog rails or track is used. The number of miles in operation, including the sidings and necessary "switch-backs" is 35. The line is of standard gauge, and the maximum grade is 264 feet to the mile on the main line. On some of the branches it is 470 feet to every 5280 feet. The highest elevation above the city is 1025 feet. There can be only 10 empty cars drawn by one locomotive, although this machine weighs 100,000 pounds and is especially constructed to "hold on to the iron" by reason of its weight and sundry devices on its brakes.

Previous to 1875, Barre granite was taken to its nearest railroad station, ten miles distant, by ox teams, or "New Hampshire horses," as they were called. The demand was small, and the teaming was usually done in the winter by farmers. But now they have excellent railroad facilities. As greater demands for stone were made transportation from quarries to the station became an important industry. Some idea of the rapid increase of the demand for this product may be formed from the fact that twelve years after the railroad to Barre was built, the daily cost of drawing granite to the village amounted to over one hundred and fifty dollars. About this time the work for the Leland Stanford mausoleum was being done by workmen in Barre. The structure

is in the form of a Grecian temple, and is forty-one feet in length by twenty-five wide and twenty-six high, and with the heavy polished pillars and hammered blocks cost \$100,000. It may be seen in Menlo Park, Palo Alto, California. The roof and gable are made of large blocks of granite, and much difficulty was experienced in conveying them to the cars. One piece, weighing more than fifty tons, was taken by F. T. Cutler four miles on rollers, and its rate of progress was nearly one mile per week. Since this time the "Sky Route" railroad has been opened.

At the city terminus of the Barre Railroad may be seen the busy throng of stone cutters engaged in changing the rough blocks of granite, delivered by the cars, into things of beauty. The granite works have an aggregate ground space of 500,000 square feet, or about thirteen acres, occupied by about 4000 cutters. Hundreds of lathes, column cutters and polishing machines are in use, and derricks and cranes reach over an area of nearly a score of acres. Something more than 3000 horse-power is utilized for the running of machinery, and this can be greatly increased by the use of water alone.

If all the plants engaged in the finishing of this material could be combined in one manufacturing centre, it would occupy a space of more than 100 acres, giving employment to thousands of men and pay them monthly nearly half a million dollars. And this industry is the growth of twenty years.

About one-half of the population of the city are Italians; not of the class that comes from Italy by the thousand to make the roadbeds and dig the ditches of America, but men from the northern part of the country, skilled workmen, who have transferred their field of labor from the fine marble of Italy to the harder granite of Vermont. Among them are some of the best sculptors and their work is admired all over the United States, in fact wherever monuments of Barre granite are seen. These are men who earn from \$4 to \$6.50 per day, and have money to spend. As will be seen from the personal sketches of the business houses in the Barre district, a majority of those firms are composed of Italians, and none are more enterprising or show more business integrity or are more loyal to "Barry Granite" than they.

Although some of the quarries have been in use almost a century, there is no tendency to exhaustion of material or increased difficulty of access. A list could be given of hundreds of build-

ings and thousands of monuments made from this granite of Barre hills, still the remark of James Thwing would hold good, that "the granite required for a monument is no more missed from the quarry than a cup of water from Lake Champlain."

The railroad trip from Barre to the quarries may call forth as much genuine admiration of nature's handiwork as the ascent of the Righi, from Lucerne, Switzerland. There is inspiration in the view of city, mountain and valleys, and the busy thousands among them are quarrying and carving the blocks of stone, which are to keep alive the names, deeds and virtues of men.

"From the hills come fortune" certainly is true in this district, for from October, 1910, to October, 1911, 160,000 tons of measured stock was taken from the several quarries. In order to accomplish this stupendous task the most massive machinery and appliances ever known for this class of work has been utilized. Derricks that lift 100 tons; overhead cable cars or blondins, that dart here and there with their load of grout or waste that weigh several tons, keep adding to the mountains of waste stock with each discharge. The utilization of this grout is one of the most difficult problems for the quarrymen to solve. A very small percentage of it is put through the crusher for road material, or cut into paving blocks. It is simply a waste to remove which records largely into the expense of quarrying.

CHAPTER XIII.

HISTORICAL SKETCHES OF MANUFACTURERS IN BARRE, MONTPELIER,
EAST BARRE, WILLIAMSTOWN, HARDWICK, MORRISVILLE,
PLAINFIELD, NORTHFIELD, WEST BERLIN, WATERTOWN,
GROTON AND SOUTH RYEGATE, VERMONT.

BARCLAY BROTHERS, Barre, is one of the largest granite manufacturing and granite quarrying firms in this country. It was established by William Barclay and William S. Littlejohn in 1887, under the firm name of Littlejohn & Barclay, and was run as such on Granite street until 1890, when Mr. Littlejohn retired. Andrew Barclay, brother of William, then became associated in the business under the firm name of Barclay Brothers, and this continued until 1892, when Andrew retired and William became sole proprietor until his death, November 22, 1907. Mr. Barclay, in 1891, bought out the Stafford & Batchelder polishing mill and column turning works at the foot of Granite street, and in 1893 he became associated with McDonnell & Sons of Buffalo, N. Y., and Quincy, Mass., in the purchase of a dark quarry, the firm being known as the Barre Granite Company. In 1894 he purchased Scott George's half-interest in the Standard Granite Company, who operated a medium quarry.

The Cook, Watkins & Barclay plant at the foot of Granite street, was taken over in 1898, and in 1900 he added the plant of Mackie, Hussey & Co., in Batchelder's Meadow, where they are now located in a modern plant erected in 1898, to which Barclay Brothers built an extensive addition in 1901.

The Riddel quarry was bought in 1901, and operated under the name of the Sunnyside Granite Company.

Mr. Barclay was a native of Scotland, being born near Fraserburgh, Aberdeenshire, Scotland, December 7, 1850, son of Peter and Mary (McDonald) Barclay. He was a farm servant and prize ploughman until reaching manhood, after which he was apprenticed to a granite cutter and builder in New Pitsligo in his native shire. In 1875 he went to Montreal, P. Q. In 1876 he returned to Scotland, where he remained four years. In 1880 he went to Quincy,

Mass., where he was employed at his trade. Six months later he again returned to Scotland, remaining there until 1883, during which year he again came to this country, going back to Scotland in 1884 and returning early in 1886 and locating permanently in Barre. During these extended visits to Scotland he was employed as foreman builder by one of the large building concern in Aberdeen.

He was Mayor of Barre three terms—1904-5-6. During his administration the permanent fire department was organized and fire station built. Also the macadamizing of the streets was established.

He was a member of Granite Lodge, F. and A. M.; Granite Chapter, R. A. M.; St. Aldemar Commandery; Mt. Sinai Temple Noble of the Mystic Shrine; also of Clan Gordon, No. 12, O. S. C., being its first chieftain in 1884. He served as president of the Granite Manufacturers' Association and the Burns Club, and always took an active interest in anything pertaining to the welfare and advancement of Barre.

After his death his sons, William, Jr., and Douglas Munro succeeded to the business, they having learned the business in their father's establishment.

William, Jr., was born in Aberdeen, Scotland, April 29, 1877, and early entered his father's office. He is a member of Clan Gordon, the Burns Club and for three years was secretary, and one year vice-president of the Granite Quarry Owners Association, and eight years vice-president of the Granite Manufacturers' Association of Barre, and several terms vice-president of the National Association of Granite Industries with headquarters at Boston. He also held the same office in the Barre Board of Trade.

Douglas Munro was born in Aberdeen, Scotland, December 29, 1880. He learned the granite cutting trade under his father. He, like his brother, is prominent in social and business societies, being a member of Granite Lodge; Granite Chapter; Montpelier Council, R. and S. M.; Montpelier Lodge of Elks; Vincitia Club; President Barre Gun Club, and Vice-President Granite Quarry Owners' Association.

This firm has made some of the most notable memorials in this country. Among them may be mentioned the Burns monument at Barre, shown in the frontispiece to Volume II of this history, the Wade Memorial at Cleveland, O., and the Mormon prophet, Joseph Smith, shaft at Sharon, Vt., the largest polished shaft in the country.

EMERY L. SMITH, Barre, is the oldest man in point of number of years identified with the granite business in that city. Certainly none have a clearer recollection of those pioneer days or a more retentive memory for dates. He is a native of Northfield, Vt., where he was born October 11, 1842. His mother died when he was eleven years of age and he made his home with Joseph Cole of Roxbury, working on his farm until October 15, 1861, when he enlisted in Company G, Sixth Vermont Infantry. He was wounded in the battle of the Wilderness, and when mustered out October 28, 1864, he held the rank of corporal. Upon his return to the duties of a civilian he resumed farming, and on October 11, 1866, was married to Mary, daughter of Eliphalet Hewett of Barre. A few months later he went to Barre and was employed by his father-in-law at his quarry at Cobble Hill until April 1, 1868, when he formed a partnership with Anson Bradley, also a son-in-law of Mr. Hewett, and under the firm name of Smith & Bradley, bought out Mr. Hewett's business.

At that time they did no quarrying during the winter, but cut doorsteps, window caps, edgestones and underpinning, to which uses granite was at the time only used. One of the first houses for which they supplied the granite is that of A. D. Morse, still standing in Barre.

This firm continued several months, when Mr. Smith bought his partner's interest and owned it alone until he formed a partnership with C. M. Winch, under the firm name of Smith & Winch, which firm continued a short time, when Mr. Smith again became sole proprietor. In 1870, he bought from Charles Wheaton his half-interest in the Wheaton quarry in Cobble Hill. This quarry land-or farm was declared by a decree of court to be equal of division, but that the granite on it was to be undivided, so that in conjunction with P. O. Wheaton, owner of the other half of the farm, he had access to all the granite thereon. It was from this quarry that the larger stones were taken for building the State House at Montpelier. The smaller stones were cut from the Harrington quarry. Mr. Smith sold his share in this quarry in 1883 to P. O. Wheaton.

April 1, 1880, Sumner Kimball became associated in business with him under the firm name of Kimball & Smith, and bought the Parker quarry on Millstone Hill. This property had been slightly opened by John Parker, father of Ed. J. Parker, from whom they bought. He was located on the south side of the hill and Ira



JOHN COPLAND BOOTH,
John A. Martinson Estate Company, Barre, Vt.



PLANT OF THE JOHN A. MARTINSON ESTATE COMPANY, BARRE, VT.



CUT BY BRUSA BROTHERS, BARRE, VT.



John J. Connelley



William Joseph Connelley

Class of Graduates in Arts, 1900



CUT BY THE ART GRANITE COMPANY, BARRE, VT.



JAMES J. GOODWIN.



ALEXANDER A. MILNE.

Firm of Goodwin & Milne, Barre, Vt.



CUT BY THE ART GRANITE COMPANY, BARRE, VT.



PLANT OF MARION & O'LEARY, BARRE, VT.



CUT BY THE PEERLESS GRANITE COMPANY, BARRE, VT.



JOHN P. SAPORITI.



SALVATORE COMOLLI.

Firm of J. P. Saporiti & Co., Barre, Vt.

Harrington was on the north. They did, for that time, a large business in building stone for various structures in Montpelier and Barre, but it was not until May 1, 1880, that he opened a cutting plant on what is now the site of the Central Vermont Railroad freight shed in Barre, and began cutting monuments. He continued this end of the business alone until 1882, when S. O. Wells was made a partner under firm name of Smith & Wells, and they ran it until 1883, when Mr. Smith sold his interest to George Lamson, but on May 1, of the same year he formed a partnership with John E. Smith, and E. F. Smith under the firm name of E. L. Smith & Co., and opened a cutting plant on Granite street. This was the beginning of the firm name that has continued to the present. They operated the manufacturing end four years when they sold to Forsyth & Ingram.

In the meantime (1881), Mr. Smith and James Gazeley of Albany, N. Y., under the firm name of Smith & Gazeley, bought what was left of the Ed. J. Parker quarry, after Wetmore & Morse had secured seven acres in 1877, and George Mann one acre. This one acre of Mann's was later owned by Mann & Duffy, and then by Mr. Duffy, who in turn sold to E. L. Smith & Co., and giving them an aggregate of 71 acres. This property was sold to Mr. Gazeley in 1882 and the heirs still own it.

Now, to return to Kimball & Smith and their Millstone Hill property. This firm was dissolved in 1883, Mr. Smith buying out his partner and the property was known as the E. L. Smith quarry until he sold a half-interest to John E. and Donald Smith, under the firm name of E. L. Smith & Co., and finally his entire holdings in 1895.

John E. Smith, like his brothers, Donald and A. A. Smith, was born in the town of Bury, P. Q. He went to St. Johnsbury and learned the stonecutter's trade in the shop of Robert Laird, after which he went to Montpelier and worked for Sumner Kimball, and later to Barre, for Smith & Wells, then located on North Main street, after which Emery Smith and he formed a partnership as E. L. Smith & Co., located on Granite street, which as before stated, was sold to Forsythe & Ingraham. He then started business for himself on North Main street, which he conducted alone until October, 1887, when he and his brothers, Donald and Emery Smith, organized the E. L. Smith & Co., and in 1888 built the large plant in Burnham's Meadow, one of the first to be tapped by the Barre Railroad, as it was March 1, 1888, that they received the first car of granite from the quarry to their shed. In 1895 they bought Emery Smith's

interest and the E. L. Smith Company was incorporated with a capital stock of \$200,000. The officers are: Donald Smith, president and general manager; C. A. Wheaton, vice-president and superintendent; E. O. Kent, secretary and treasurer, and William L. Wheaton, bookkeeper.

John E. Smith died July 14, 1910, beloved by all who knew him. He was prominent in social and business circles, being a member of Granite Lodge, Granite Chapter, St. Aldemar Commandery and Mt. Sinia Temple, F. and A. M., Elks, Barre and Boston Canadian Club and the Vincitia Club.

Donald Smith when a young man worked on a farm in summer and lumber camp in winter. His brothers went to Barre, and one Sunday in 1882, after riding to Montpelier, he walked to Barre to visit them, and they secured him employment in the quarry of Wetmore & Morse. After one year at that work he started to learn the stonemason's trade, but soon abandoned it to work in the quarry, this time for Wells & Lamson. In 1886 he bought boulders from the Abbott property, which he sold to Wetmore & Morse. That winter he bought a half interest in the provision market of H. J. Smith, but sold it a few months later, and accepted the position of superintendent of the Langdon quarry now owned by Boutwell-Milne & Varnum, where he remained until 1887, when he became associated with his brother and Emery Smith. He is a member of Commandery, Chapter and Temple, F. and A. M., president Canadian Club of Barre, member Canadian Club of Boston, Elks, and Vincitia Club.

Another brother, A. A. Smith, was born May, 1859. He worked for Smith & Wells and later opened the first general store in Graniteville. He is a stockholder and director of the E. L. Smith & Co., and is a large real estate owner.

The quarry property covers some 70 acres and gives employment to 200 men. It is equipped with eleven derricks and several stripping derricks of from 25 to 75 tons capacity, also a Lidgerwood cable-way of 20 tons capacity. The motive power is steam and electricity, there being five boilers of from 75 to 100 horse-power each, several engines and three air compressors of 1750, 700 and 500 feet per minute respectively.

The first permanent derrick was used on the Smith quarry at Cobble Hill in 1875. This was obtained at Northfield at an abandoned slate quarry. It was a horse-power capstain of 2 1-2 tons capacity, and this was followed at the Millstone Hill quarry by another, greatly improved according to original plans of Mr. Smith

and Mr. Eley of Northfield. This derrick had a gearing system multiplied by three, the wooden drum being upright instead of horizontal as now used and improved by Mr. Whitcomb. It was of five tons capacity. They were the first to use a battery system for quarry blasting and the first steam drill was used by them in 1883, it being furnished by the Rand Drill Company of New York. The original pneumatic plug drill was also adopted in their quarry, and they were the first to use compound air for drilling.

THE FIRM OF ROBINS BROTHERS, Batchelder's Meadow, Barre, was established by Charles and George Robins in 1891, and six years later their father, John Robins, joined them in the business. Mr. Robins, Sr., is a native of Fowey, Cornwall County, England, where he was born April 24, 1845. He learned his trade with his father in England, and came to this country in 1870, locating a short time in New York City, from which place he moved to Westerly, R. I., and worked about one year for the Ledbert Granite Company, now the New England Granite Company. He then went to Cape Ann, where he worked on stone for the Boston postoffice. He then was employed by M. H. St. John in Clark's Island, Me., as foreman, a position he held for thirteen years, when in 1888 he went to Barre, and, together with William Cole and Onorato N. Marciasi, engaged in business in Burnham's Meadow under the firm name of Robins & Co. About four years later he sold his interest and was superintendent for C. E. Tainter & Co., where he remained six years. He then joined his sons, who had established the present business at this location. They built this modern plant in 1901, the shed being 180x60 feet in dimensions. They use 65 horse-power motors, and employ 42 men, their trade being in monuments and mausoleums of all kinds which are sent to all parts of the country. Among the more important of their monuments may be mentioned the Treanor mausoleum in South Bend, which together with their plant is illustrated in this book. Mr. Robins served on the Barre Board of Aldermen from 1898 to 1904, and was Mayor 1907-8-9. He is a member of Tivian Lodge of Gloucester, but now of the Aurora Lodge of Rockland, Me., F. and A. M.

George Robins was born at Northhill, County of Cornwall, England, June 29, 1866, and came to the United States in 1874, locating at Rockland, Me. Later he was employed by M. H. St. John. He went to Barre in 1888, and worked as quarryman until 1892, when he engaged in his present business. He is a member of Hiawatha

Lodge, Minnehaha Encampment, and Canton Vinton, Patriarch Militant, I. O. O. F.

Charles Robins was born at Northhill, January 9, 1870. He learned his trade with his father.

THE JONES BROTHERS were born in Ebensburg, Penn., and as Marshall W. was the oldest son he entered the monument business at Zanesville, O., soon after leaving school. A few years later a younger brother, Seward W., was engaged by the same firm, and they remained with him until 1882, when they determined to engage in business for themselves. They came to Boston and opened offices at 55 Kilby street, doing an exclusively wholesale business in which they were the pioneers and were successful from the start.

At that time marble was the principal monumental stone, then came Scotch and other foreign granites. The American granites were also fast forging ahead, so that in 1886 they began manufacturing at Barre, at the same time purchasing a dark granite quarry. Another brother, Dayton E., was admitted to the firm, and in 1890, the remaining brother, Hugh J. M., joined them. Each of the boys had his own particular department to handle and their combined efforts were so effective that in 1895 they built their present plant, perhaps the largest of its kind in the world. Here is installed the only surface cutter in that vicinity, two McDonald stone-cutting machines, two gang saws, immense cutting and polishing lathes, three inside traveling derricks, each 40 tons capacity, pneumatic surface cutters, pneumatic tool, etc., all of which are operated by steam and water aggregating 300 horse-power.

In 1898 they added to their business the C. E. Taynton & Co.'s quarry, from which they obtain a high-grade light stone. But they needed more and different stock so that in 1907 they bought the controlling interest in the Wells-Lamson Quarry Company, which produces light and medium granite. Thus equipped and with a working force of 450 skilled operatives and clerks, they do a strictly wholesale business in monuments and mausoleums. Among their more notable productions may be mentioned the mausoleum for Judge Garry of Chicago, Ill., Krueger of Newark, N. J., and Andrews of Cleveland, O., soldiers' monuments at York, Penn., Terra Haute, Ind., and Tippecanoe, Ind.; also military monuments on the battlefields at Chickamauga, Petersburg and Antietam. Perhaps the most remarkable engineering feat in handling large monoliths was the successful transportation and erection of the sixteen col-

umns for the Cathedral of St. John the Divine at New York. Eight of these pillars weighed 90 tons each, and eight 45 tons each, and these were hauled by an entirely new method of transportation from Vinal Haven, Me., where they were cut, to their resting place in New York.

In 1882 the firm name was Jones Brothers, but in 1903 it was incorporated under the present name of Jones Brothers Company, with a capital of \$250,000, the officers being Marshall W. Jones, president; Hugh J. M. Jones, vice-president, and Seward W. Jones, treasurer. That year Dayton E. Jones died. In 1901 they moved to their present quarters, 161 Summer street, Boston.

Seward W. Jones has held the office of president of the National Association of Granite Industries of the United States since its organization. He was honored with a seat in Governor Guild's and Governor Draper's Council of Massachusetts in 1907-8-9; was 13 years a member of the Newton Board of Health; four years a member of the State Board of Insanity, and now a trustee of the Danvers Hospital for the Insane; president Newton Centre Savings Bank; director Newton Trust Company and of the Newtonville Trust Company. He is a member of Dalhousie Lodge, F. and A. M. the Newton Club, Massachusetts Club, Middlesex Club, Norfolk Club and one of the Board of Governors of the Traffic Club of New England.

Marshall and Hugh also give of their time to the public, the former being a member of the Winchester Board of Health and the latter is president of the Montpelier School Board, besides being identified with several social organizations.

THE FIRM OF CUTLER, STORER & FAY CO., Burnham's Meadow, Barre, is composed of Fayette T. Cutler, president; Richard V. Storer, vice-president, and Alland G. Fay, secretary and treasurer. Mr. Cutler is one of the oldest granite manufacturers in Barre, having learned the stone-cutter's trade thirty-two years ago. He was born in Orange, Vt., September 22, 1850, and went to Barre in 1864, where he was employed on a farm until 1870, when he was apprenticed for three years to Wetmore & Morse. He then worked for White Brothers as foreman four years, when he returned to Wetmore & Morse as foreman of their force of 125 men. That firm dissolved five years later and Mr. Cutler formed a partnership with William N. Burnham under the firm name of Cutler & Burnham, locating in the Wetmore & Morse sheds, where they remained until

the present plant on Burnham's Meadow was built. Twelve years later Mr. Burnham sold his interest to J. W. McDonald & Bros, and Mr. Cutler bought an interest with the McDonald Brothers in a quarry under the firm name of McDonald, Cutler & Co. They operated this property five years and sold it to the Consolidated Quarry Company. He sold the cutting plant to the Eclat Granite Company, who ran it two years, when it again fell under Mr. Cutler's control, and it was incorporated under its present name. He then sold his interest in the quarry to the Consolidated Quarry Company. He is interested in the Barre White Quarry Company. He is a member of Granite Lodge, F. and A. M., and for two years was a member of the Board of Aldermen.

Mr. Storer is a native of Zanesville, Ohio, where he was born February 24, 1875. After being graduated from the high school he went to work in 1893 as bookkeeper in the Chicago office of Jones Bros., and from 1895 to 1898 he acted as traveling salesman for that firm and for Charles Clements. After a period of two years as salesman for wholesalers in other lines of goods he returned to the granite business in the employ of E. C. Willison, but a few months later he opened an office in Chicago, representing granite manufacturers. In 1908 he had formed the following manufacturing connections: Vice-president, Cutler, Storer & Fay Co.; president, Storer & Gelotte Co., Quincy, and vice-president, Barre White Granite Company. In 1910 he organized the firm of the McKay-Storer Company, Chicago, dealer in building stone and marble, of which firm he is secretary and treasurer. In 1911 he secured one-third interest in the Granite City Granite Company, St. Cloud, Minn.

Mr. Fay was born in Brookfield, Vt., December 4, 1856, and lived in Williamstown until 1869, when he moved to Barre, and remained there until 1881. He then located in Montpelier and studied law in the office of Heath & Carleton. He was admitted to the bar October, 1884, and practised in Plainfield until 1887, when he returned to Montpelier and formed a partnership with C. H. Heath under the firm name of Heath & Fay, which continued until 1889, when Mr. Heath died. He then became associated with George W. Wing under the firm name of Wing & Fay, and did business until 1892, when he moved to Lancaster, N. H., where he lived until August, 1895. He returned to Barre and practised law until 1900, when he was appointed judge of the City Court, which position he held until December, 1906, after which he continued in his profession until 1908, when he entered this firm. He was assistant secre-

tary of the Vermont Senate, 1886-8; city assessor, 1887-8; is a member of the executive committee and treasurer of Goddard Seminary, and a trustee and secretary of board of trustees, Barre City Hospital.

Their plant comprises a polishing mill 128-40 feet in dimensions and a cutting shed 315 feet long, and is modern in its equipment. They employ 60 men and do all kinds of monumental work.

AUGUSTO SANGUINETTI, ERNESTO TOSI, GINO TOSI AND CARILLO FABRICOTTI comprise the firm of Tosi, Sanguinetti & Co., Blackwell street, Barre. Mr. Sanguinetti, as are his partners, is a native of Carrara, Italy, where he was born in May, 1879. He came to this country 16 years ago, settled in Montpelier, Vt., where he secured employment as a sculptor, he having served an apprenticeship in Italy. Later he went to Quincy, Mass., and finally he secured better opportunities at Barre, where he commenced business as a sculptor under the name Augusto Sanguinetti & Co. Later he joined his present partners, who were conducting a similar business under the name of E. Tosi & Co., also sculptors.

Ernesto Tosi, who was born in 1869, arrived in Barre 17 years ago. From there he moved to Hallowell, Me., where he executed the Group of Statues representing the "Triumph of America," which was erected on the Old Record Building, New York. From Hallowell, Mr. Tosi returned to Barre, where he with Gino Tosi and Carillo Fabricotti, established business as sculptors under the firm name E. Tosi & Co. Gino Tosi, who was born in 1879, and Carillo Fabricotti in 1878, have been in this country eight years. In May, 1910, the two firms joined partnership.

In their plant, where visitors are always welcome, are seen scores of models and many statues in various stages of completion, a sample of their work being illustrated on another page.

THE JOHN A. MARTINSON ESTATE COMPANY, Barre, was established by John A. Martinson, who was killed May, 1907, by the fall of a derrick boom in his yard. After his death the business was managed by H. W. Scott as administrator of the estate until July, 1909, when it was incorporated with Mrs. Martinson as president, O. E. Anderson, vice-president and Secretary, and John Nicholson, manager and treasurer, who run it until May, 1912, when John Copland Booth bought the Anderson-Nicholson interest and assumed the duties of treasurer and general manager. Mr. Booth is a native of Aberdeen, Scotland, where he was born June 23, 1879.

He served five years at his trade in his native city, after which he worked six years as journeyman. He went to Barre, May 13, 1901, and was employed by Barclay Brothers, first as cutter, then as assistant manager, a position he held until he bought his interest in this firm. The John A. Martinson Estate Company have a modern plant 174x64 feet in dimensions, and give employment to 35 men. Their work is high grade and they make a specialty of polishing, using the cold-glossing process, of which they are the originators.

THE FIRM OF ADIE & MILNE, Circle, near South Main streets, Barre, is composed of James Adie and James S. Milne. Mr. Adie was born at New Aberdour, Aberdeenshire, Scotland, June 13, 1864, and went to Barre in 1885, where he learned his trade with Donald McCloud, serving three years. He then worked for Barclay & Littlejohn, and Marr & Gordon until 1892, when he went in business with George Mitchell under the firm name of Adie & Mitchell. This continued until 1901, when he became associated with Mr. Milne, and under the present firm name built this plant, where they employ about 30 men and do a business in all kinds of monuments. Mr. Adie holds the office of President of the Granite Manufacturers' Association of Barre since 1910, and has been a member of the Board of Directors several years. He is a member of Granite Lodge of Barre, F. and A. M., and Clan Gordon.

James S. Milne is also a native of Aberdeen, where he was born March 21, 1851. He learned his trade there and went to Quincy, Mass., about 25 years ago. He also worked in Milford and Cambridge, and then went to Barre, where he was employed by McDonald & Buchan for 13 years, after which he was engaged as foreman by Jones Bros. Co., and in the same capacity by the Fletcher Granite Company of St. Albans. He is a member of Operative Lodge of Scotland, F. and A. M.

THE FIRM OF CHIOLDI BROTHERS, foot of Granite street, Barre, Vt., is composed of Antonio and Medardo Chioldi. Both were born in Parma, Italy. Medardo, April 14, 1873, and Antonio, January 25, 1876. Both learned the trade of stone-cutting in Italy, and worked as journeymen until coming to Montpelier, which Medardo did one year later than his brothers, and he worked at the trade until they went in business together. Both, after an apprenticeship of three years, worked in Switzerland, Germany,



PLANT OF SMITH BROTHERS GRANITE COMPANY, BARRE, VT.



CUT BY WILLIS A. HALL, BARRE, VT.



CUT BY ADIE & MILNE, BARRE, VT.



PLANT OF GIUDICI BROTHERS & CO., BARRE, VT.



CUT BY TOSI & SANGUINETTI, BARRE, VT.



VIEW OF INTERIOR OF GREARSON & LANE CO.'S PLANT, BARRE, VT.

Assowan and Bohemia, in all about eight years, when they went to Montpelier, where Antonio found employment with Thomas Lynch. They then worked for various firms until three years later they became associated in business in that city. One year afterwards they went to Barre, and after two years in Smith street they moved to their present quarters in 1907. They employ 18 hands and do a fine grade of all kinds of monumental and statuary work. Of the pieces cut by them the J. S. Schwab statue monument at Waldheim Cemetery, Forrest Park, Ill.; the Ott monument, and the shaft for F. Efch, besides other stones in various sections of the country are deserving of special mention.

CHARLES J. LE CLAIR AND PATRICK E. McNULTY compose the firm of Le Clair & McNulty, Blackwell street, Barre, where they have a plant that gives employment to 40 men and have facilities for manufacturing high-grade monuments of all dimensions. Among the more noteworthy pieces cut by them may be mentioned the Hill carved monument at Cartledge, Ind.; the Welsh polished memorial at Baltimore, Md., and the Otterbein stone in the same city. Mr. Le Clair is a native of Rutland, Vt., where he was born January 1, 1869. His first experience in the granite industry was in 1891, when he went to Barre and was employed three years by Emslie & Killman, after which he worked with various firms twelve years when he became associated with Luke Gallagher under the firm name of Gallagher & Le Clair and operated a shed at the foot of Granite street. Two years later they dissolved partnership, and he joined Mr. McNulty, and in 1910 moved to their present plant. He is a member C. O. F., K. of C. and A. O. H. Mr. McNulty was born in Rawdon, P. Q., November 7, 1865, and in March, 1891, went to Barre, working for Melcher & Hadley. In 1899 he and W. J. Carroll engaged in business under the firm name of Carroll & McNulty, with a shed near West street, until 1906, when they moved to Granite street. Later he joined Mr. Le Clair. He served as alderman of Barre, 1907-8-9; is a justice of the peace; a member of C. O. F., K. of C., K. of P. and A. O. H.

THE FIRST GRANITE working implements used in Barre were made by what is now the firm of Smith, Whitcomb & Cook Co. It was about 1870 that they constructed the first boom derrick used for one horse-power, they improving one that was in use in a marble quarry in Rutland. In 1875 they made the first polishing machine which was set up and operated in a part of their factory. The

material was wood, but the principle was very like that used in similar machines today. The machine was built for and run by Henry Wetmore. Smith, Whitcomb & Cook Co. date the origin of their business to the year 1803, when Frederick Brewster started in the machine business. He was succeeded in 1807 by Joshua Twing, who run it until his death in 1866. In 1868 the business passed into the hands of James M. Smith, William E. Whitcomb, and Benjamin B. Cook, who continued it as a firm until 1893, at which time Will A. Whitcomb, son of William E. Whitcomb, bought Mr. Cook's interest. There were no changes in the firm until 1900, when Mr. Whitcomb, Sr., died, and his son took his interest, and at the same time bought Mr. Smith's portion. It was then incorporated as the Smith, Whitcomb & Cook Co., with Will Whitcomb as president, F. J. Martin and F. F. Cave, directors. Will retired in 1901, and the firm is now composed of Mr. Cave and Frank L. Small. Will Whitcomb went to work for the firm in 1871, and learned all branches of the business. He was born in Barre, September 6, 1854, and his father, a native of Orange, Vt., was born November 4, 1826, and died January 10, 1900.

They manufacture the celebrated Champion Polishing Machines and the Barre Boom Derrick.

STANTON W. WASGOTT is the only member of the firm of Freeman & Wasgott, Granite street, Barre, Orvis Freeman having retired from the firm one year after it was formed. Mr. Wasgott was born at Mt. Desert, Maine, July 20, 1868, and worked six years cutting paving stones and quarrying for C. J. Hall. He then learned the stone cutter's trade, at which he worked in various sections of Maine until 1900, when he received the contract for cutting the stone for the Public Library at Alfred, Me. He then went to Barre and was employed by Jones Bros. Co. until 1906, when he formed the partnership with Mr. Freeman, and located in Burnham's Meadow, where he remained three years, then moving to his present quarters. The Shellabarger monument at Kansas is a good example of his work. He is a member of Granite Lodge, F. and A. M., K. of P. and Eastern Star.

THE FIRM OF YOUNG BROTHERS COMPANY, Barre, Vt., is composed of five brothers, as follows: Alexander J., Arthur D., Walter, George and Gordon Young. They are natives of Fyvie, Aberdeenshire, Scotland, Alexander, the eldest, being born March 6, 1867. He was the first of the family to come to this country,

doing so in 1888, and locating at Barre, where he learned the stone-cutter's trade in the shed of Milne & Wiley. In 1892 he became associated in business with Mr. Milne, under the firm name of Young & Milne, and located at East Barre. The year following they dissolved partnership and Mr. Young continued under his own name until 1896, when his brothers became associated in business under the name of Young Brothers, and in 1909 the firm was incorporated for \$50,000 with Alexander J. Young as president, and Arthur D. as treasurer and clerk. Their plant is 270x69 feet in dimensions, is one of the largest and best-equipped in the country, it being furnished with polishing wheels and gang saws, besides the modern stone-cutting appliances, the whole being run by a 235 horse power motor. They employ 75 men, and they do all kinds of monumental and interior stone work.

Alexander is a member of Granite Lodge, Granite Chapter, St. Aldemar Commandery and Mt. Sinia Temple, F. and A. M.; Clan Gordon, the Vincitia Club, a director of the People's National Bank of Barre, and of the Granite Mutual Insurance Company. Arthur was born September 28, 1868, and learned the tailor's trade, which he followed in Scotland until 1889, when he went to Montpelier, and later to the West, returning to Barre to join his brothers in 1905. He has charge of the office business. Walter was born January 4, 1874. He learned the stone-cutter's trade from his brother Alexander. He is their salesman in charge of the New York office. George was born August 19, 1870. He learned the builder's trade in the old country and worked at it several years in South Africa. He is in charge of the drafting department. Gordon was born January 30, 1881. He learned stone-cutting in his brother's plant. He is a resident of New York City.

MALNATI BROS., Barre, was established in 1902 by Victor M. and John M. Malnati, and John D. Derryevic. They occupy a well equipped and commodious plant, giving employment to 12 men, make a specialty of fine carving and sculpture, as well as hammered and polished work.

Victor and his brother are natives of Bisuschio, Italy, the former being born December 13, 1877. After learning his trade in Italy he came to this country February 27, 1895, and was employed by Broggi & Benenasconi in Plainfield, Vt., for three years, when he went to Barre and worked for Barclay Bros. ten years or until going in business.

John was born in March, 1890, and six years ago went to Barre in the employ of Barclay Bros., where he remained until he joined his brother in business.

Mr. Derryevic was born in Koustun, Istrie, Austria, May 15, 1862. After learning his trade he served in the Italian navy, and later went to Africa and worked 7 years, when he moved to Montpelier. He was employed by Jones Bros. Co. and Barclay Bros. until he engaged in business.

THE FIRM OF HEBERT & LADRIE, Barre, is composed of Wilfred G. Hebert and Joseph Ladrie. The former was born in Naperville, Canada, April 22, 1873, and when 17 years of age went to Barre and learned his trade with Park & Dunbar, and later worked for Cross Bros., and the Columbia Granite Co., when in 1903 he formed a partnership with his brother Telesphore, under the firm name of W. G. Hebert & Co., and located in Montpelier. One year later Joseph F. Bussiere was admitted to the firm, and the name was changed to Hebert & Bussiere.

Mr. Ladrie is a native of St. John, P. Q., where he was born March 29, 1880, and when a child moved to St. Johnsbury, Vt. He learned stone cutting from Mr. Ladd of St. Johnsbury, and then went to Barre, where he worked for Robins Bros. He worked at various times in Milford, Mass., Lynn, Worcester and Boston, when he returned to Barre and formed a partnership with E. N. Rock, under the firm name of Rock & Ladrie, which firm was dissolved six months later. He then became associated in business with T. Hebert under the firm name of Hebert & Ladrie, which continued until 1910, when W. G. Hebert bought his brother's interest. He is a member of St. Jean Baptist, A. O. H., I. O. F. and the Woodmen of America. They moved to their present location, Burnham's Meadow, in 1912, and now have a commodious and up-to-date plant, fully equipped with modern machinery for the manufacture of all kinds of monumental work.

McMILLAN & SON, Blackwell street, Barre, is one of the oldest granite manufacturing concerns in that city, having been founded by Charles W. McMillan in 1888. Mr. McMillan was a native of Aberdeen, Scotland, where he was born November 28, 1849, and early learned the granite cutting trade in his native city. He was married in 1872 in Aberdeen to Christina Melvin. They came to this country in 1880, and for a few years Mr. McMillan

worked at his trade in Fox Island, Me., Quincy, Mass., and Montreal, P. Q. In 1885, they went to Barre, and for about three years he was employed by Marr & Gordon, and in 1888 he started in the granite business in the old Empire Circle on Granite street. Shortly afterwards he formed a partnership with Alexander Stephens. A few months later the firm dissolved and Mr. McMillan continued alone until 1895, when he again entered into partnership with Mr. Stephens. This partnership continued until Mr. Stephens' death in 1904. The present firm of McMillan & Son was then formed. In 1911, Mr. McMillan made a three-months' visit to Scotland, but was taken sick soon after arriving at his old home. He returned to Barre, September 16, and died on the 18th of the same month. He was Past Chief of Clan Gordon and at the time of his death was president of the Burns Club.

Charles W. McMillan, Jr., was born at Aberdeen, March 1, 1878, and with his parents went to Montreal in 1882, then to Barre in 1885. After leaving school he learned his trade of stonecutting with his father, working in that plant five years. He then worked in New York a short time when he visited Scotland several months, and on his return to this country worked at his trade in the West until Mr. Stephens' death, when he returned to Barre and became associated with his father in business. Their up-to-date plant is 165x40 feet in dimension and is fully equipped with all the latest appliances used in manufacturing granite, which is run by an 80 horse-power electric motor. Thirty-five men are employed by the firm and they do all kinds of monumental work. He is a member of Granite Lodge and Granite Chapter, No. 26, F. and A. M., and Clan Gordon.

GEORGE STRAITON, South Main street, Barre, is a native of Rhyne, Aberdeenshire, Scotland, where he was born July 20, 1863. He went to Aberdeen when a child and after leaving school was apprenticed to Garden & Co., where he worked five years. In 1882 he went to Quincy, Mass., finding employment with Mayo & Mason for about six months, then with James Desmond two years. He then moved to Biddeford, Me., and was there six months, and a like period at St. Johnsbury, Vt., when he returned to Quincy, and stayed there nearly two years. After a trip to his native city and about two years in Wisconsin he again went to Quincy, but one year later moved to Barre, where he was employed by Alexander Milne until 1892, when he and James Thom formed a partnership

under the firm name of Straiton & Thom and located off North Main street from where he moved to Burnham's Meadow. He bought Mr. Thom's interest in May, 1893, since which time he has continued under his own name. He was located in the Meadow a short time, and in 1902 built his present model plant, which is 245x60 feet in dimension. Every appliance is used, and they are operated by an 80 horse-power motor. Sixty men are employed, and he does a large business in monumental and building work. Among the more notable memorials he has turned out may be mentioned the beautiful monument illustrated in this volume, which was erected at Vicksburg by the State of Iowa; the Powell mausoleum at West Laurel Hill Cemetery, Philadelphia; the Quast vault, at Greenwood Cemetery, Brooklyn; the Mershon vault and Carson vault at Philadelphia.

Alexander D. Straiton, his son, was born at Barre, April 5, 1891. After graduating from Commercial College he entered his father's office. Mr. Straiton is also principal owner, treasurer and general manager of the George Straiton Quarry Company, they buying the Cheeney farm of twenty-five acres at Millstone Hill, which produces a fine medium granite.

JOHN P. SAPORITI AND SALVATORE COMOLLI comprise the firm of John P. Saporiti & Co., Barre. Mr. Saporiti is a native of Cairate, Lombardy, Italy, where he was born February 9, 1877. He went to Rockford, Ill., in 1893, and remained there about three years, when he moved to Quincy and learned stone cutting at Kavanagh Bros. Co. Three years afterwards he worked one year for A. Malnatti. He then was employed in Salem and Quincy until 1899, when he went to Barre and started manufacturing for himself. One year later he engaged in business at Williamstown, Vt. About two years afterwards he formed a business partnership with his cousin under the firm name of Saporiti & Saporiti at East Barre, which continued four years, when he sold his interests and returned to Barre, where he engaged in business with Salvatore Comolli under the present firm name.

Mr. Comolli was born in Bisuschio, Lombardy, Italy, August 12, 1874, in which city he served five years learning his trade. He went to Quincy in 1892, and was employed by Mr. Malnatti three years, when he moved to Barre and worked for Barclay Bros. until going in business with Mr. Saporiti. They do all kinds of monumental work, fine carving, etc., and employ 16 men.

SMITH BROTHERS GRANITE COMPANY, Barre, was established in 1900 by the brothers, Henry J., James M., William G. and Alexander D. Smith, all natives of Aberdeen, Scotland. Henry J. was born April 30, 1870, and after learning his trade went to Barre in 1898, and worked for Littlejohn & Milne two years, then joining his brothers in business. Alexander retired from the firm in 1901, and the following year William died. It was then that James A. Long bought an interest in the business. James M. Smith died September, 1910, but the firm name has remained the same. They began business in a small shed in Burnham's Meadow, but soon outgrew it, and moved to the sheds formerly occupied by E. L. Smith, where they remained until 1905, when they leased the Bolster sheds, and in 1909 bought the E. L. Smith plant, where they are now located. They do all kinds of cemetery work, and employ 35 men. Among the more notable monuments cut by them may be mentioned the public monument erected to the miners in Pennsylvania, that by the Irish Benevolent Association in Calvary Cemetery, New York; to ex-Lieutenant-Governor Woodruff, and to John H. Grote, in Greenwood Cemetery, New York.

Mr. Smith is a member of Granite Lodge, F. and A. M.; Clan MacGregor, and is treasurer of the Church of the Good Shepherd.

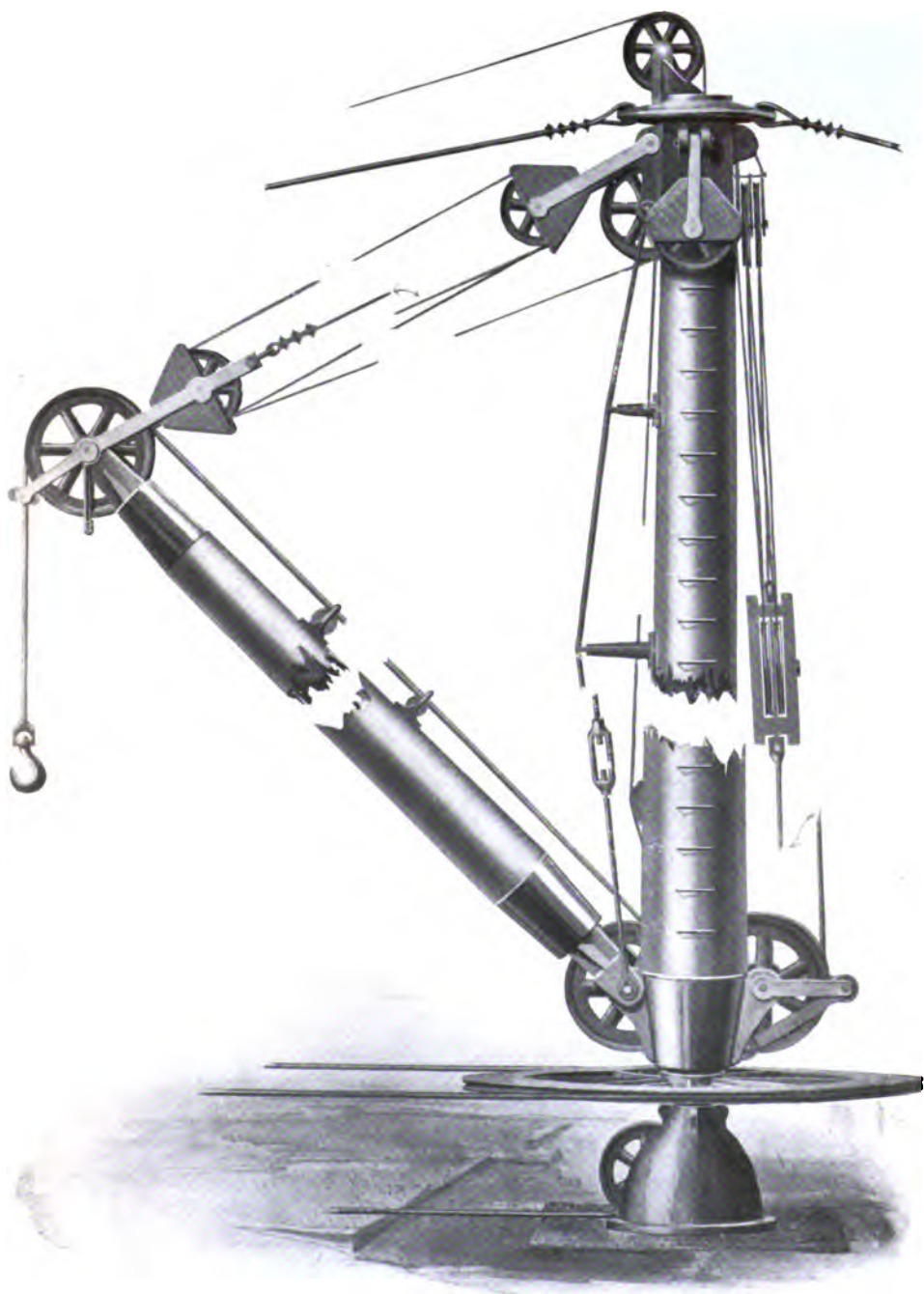
James A. Long was born in Limerick, Ireland, April 29, 1871, and in 1889 went to Concord, N. H., where he learned his trade with the New England Granite Company. He moved to Barre in 1898 and worked for Jones Brothers Company until becoming a member of this firm. He is a member of Granite Lodge, and Council, F. and A. M., and Hiawatha Lodge, I. O. O. F.

EUGENE A. CARUSI, Barre, is a native of Carrara, Italy, where he was born December 13, 1871. After leaving school he was apprenticed to Andrea Bertozzi, sculptor, of his native place, and remained with him from 1884 to 1892, after which he worked in various parts of Italy. He went to Montpelier in 1894, and was employed one year by Harry J. Bertoli, after which he worked for several firms doing special work until 1897, when he engaged in business with J. B. Sanguinetti, under the firm name of Carusi & Sanguinetti, locating in one of the Jones Bros. sheds, where he now is. They dissolved partnership a few years later, Mr. Carusi buying his interest. Since then he has carried on the business alone. He makes a specialty of fine statuary and carved work, he being recognized as one of the most skillful sculptors in his line in the

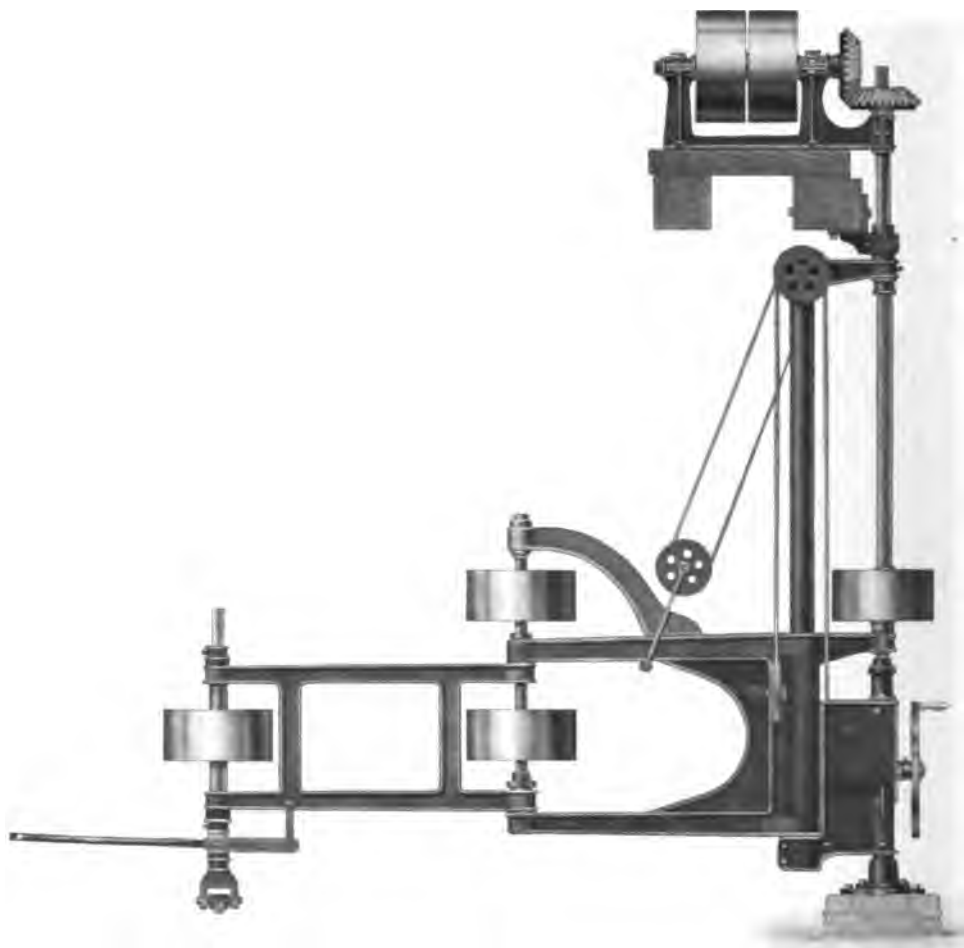
country. Among the more notable statues and monuments from his establishment may be mentioned the Ballard angel and cross piece illustrated in this volume; the Banzhof angel and rock face piece set up in New Jersey, and the beautiful angel in flight. He employs 18 men and sends his work all over the United States.

MRS. ELIZABETH CARROLL, Barre, has the distinction of being the only woman in New England holding the position of sole proprietor and manager of a granite manufacturing business. She is the widow of William J. Carroll of the firm of Carroll & McNulty, located at the foot of Granite street. About two years before her husband's death, which occurred August 10, 1907, she assisted him in the care of the firm's books, so that she obtained a fairly good insight into the business, and when the time came she took over the entire management of its affairs, and has met with every success. William J. Carroll was a native of Danby, Vt., where he was born November 23, 1869, and worked on a farm until 1889, when he went to Barre and learned the granite cutters' trade in the plant of William Kennison. He then worked as journeyman most of the time for George Straiton, and in 1898 joined Patrick McNulty under the firm name of Carroll & McNulty, and located in a shed in Depot square, where they remained two years, and then moved to their present quarters. In 1905 the firm dissolved, Mr. Carroll buying the business and at the time of his death employed 32 hands. He married Elizabeth Murphy of Rockland, Me., in 1891, and left six daughters and one son, William E., Alice I., Esther M., Helen E., Adele E., Gladys C., Bernice. Mrs. Carroll has a trade in all grades of monuments that extends to all parts of the United States.

EUGENE C. GLYSSON, Barre, bought in May, 1909, one of the oldest-established granite firms in Barre. McDonald & Buchan was organized in June, 1884, and after a short time on Granite street they bought the Whitcomb Bros.' polishing plant in Jockey Hollow. There was no railroad running into the shed, but they enlarged it, and through co-operation with other firms, were successful in getting a spur track to connect with their plant. Since Mr. Glysson's proprietorship he has made many additions to the building, and improved the plant generally, until today it is fully equipped with modern machinery, and gives employment to 33 hands. The shed is 160x40 feet in dimension, and the motive power includes a 75 horse-power steam engine, and 50 horse-power water wheel. Besides cutting he does polishing and turning, and his trade extends to



"BARRE" BOOM DERRICK,
Made by Smith, Whitcomb & Cook Co., Barre, Vt.



"CHAMPION" POLISHING MACHINE.
Made by Smith, Whitcomb & Cook Co., Barre, Vt.



JAMES M. SMITH.



WILLIAM F. WHITCOMB.

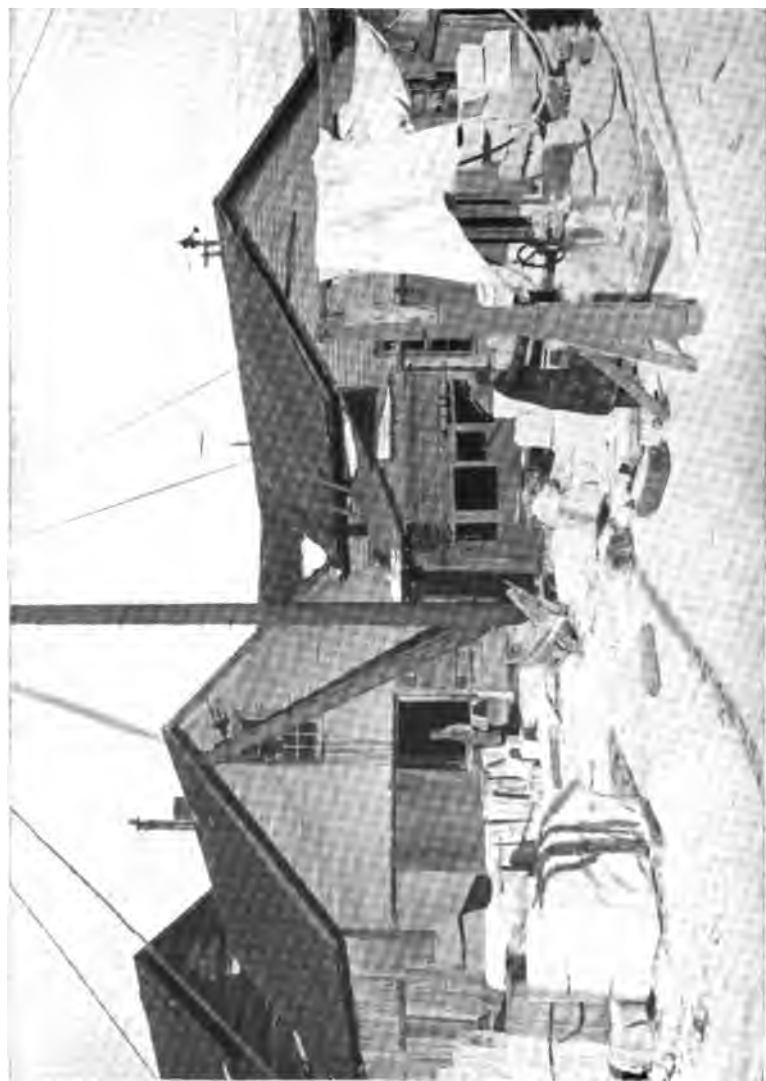


BENJAMIN B. COOK.

Founders of the firm of Smith, Whitcomb & Cook Co., Barre, Vt.



CUT BY RIZZI BROTHERS, BARRE, VT.



PLANT OF WILLIAM COLE & SONS, BARRE, VT.



CUT BY LOUIS SASSI, BARRE, VT.



FAYETTE T. CUTLER,



R. V. STORER,



ALLARD G. FAY,

Firm of Cutler, Storer & Fay, Barre, Vt.



PLANT OF GEORGE E. BOND, BARRE, VT.

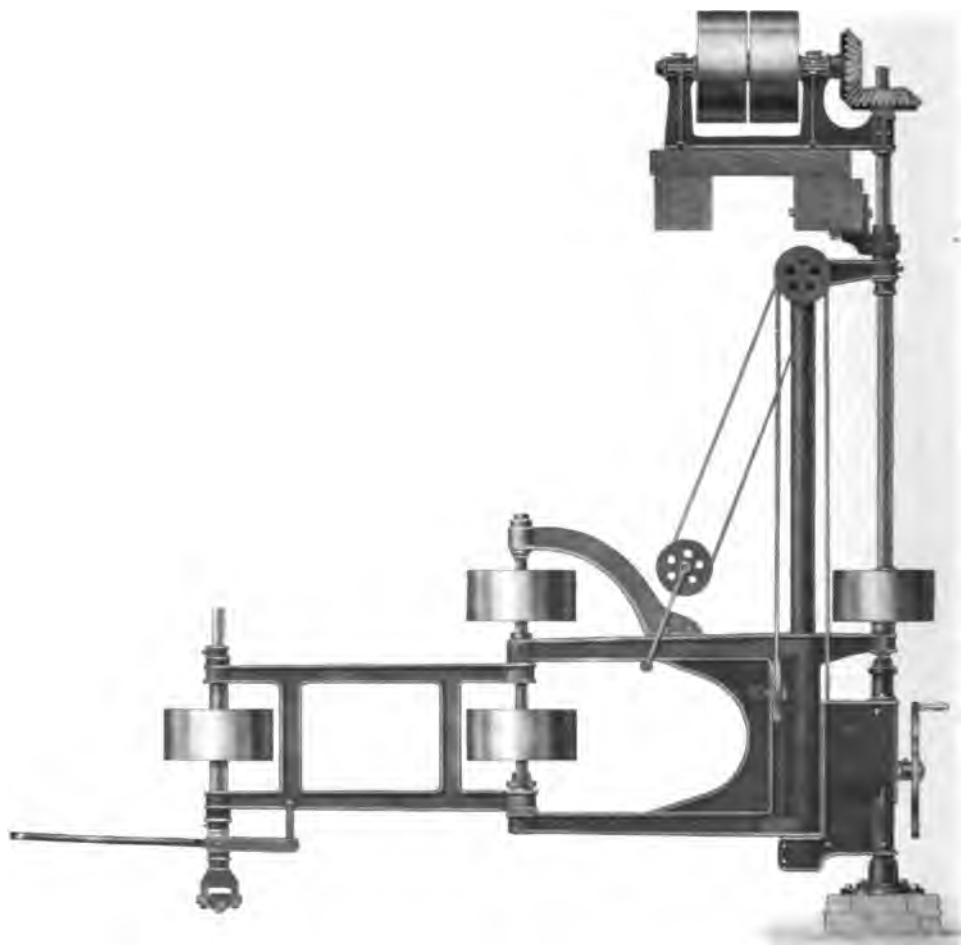
all parts of the country. The first travelling crane used in a stone plant in Vermont was installed and is still in use in this plant.

Mr. Glysson is a native of Brookfield, Vt., where he was born November 16, 1867. He went to Barre in 1888, and learned his trade with Charles Kennison, after which he worked for Jones Bros. Co., Wells & Lamson, Marr & Gordon and C. E. Taintor several years. He then formed a partnership with John L. Walker, under the firm name of Walker & Glysson, and located on Blackwell street. He changed his location several times after buying his partner's interest, until 1909, when he bought out McDonald & Buchan. He is a member of and held all the chairs up to Grand Lodge in the K. of P., and is a member of Vincitia Club.

THE FIRM OF BRUSA BROTHERS, Barre, is composed of John B. and Louis Brusa, and was established in 1906. They are natives of Brenno Useria, Italy, John being born July 31, 1879, and Louis, October 10, 1885. John served an apprenticeship of six years in the school of Brera, Milan, and later went to work in Germany on church construction until 1899, when he moved to Barre, and was employed at various times by Barclay Bros., Littlejohn, Odgers & Milne and Perry & Jones, when he formed a partnership with his brothers Louis and Caesar. The latter resigned some time afterward, and the business has been carried on by John and Louis. They are located in Blackwell street, and employ 16 men, making a specialty of fine carving.

Louis learned his trade in the art school at Viggiu, Italy, and in 1901 went to Barre, and worked for Littlejohn, Odgers & Milne, Rizzi Bros. and Vanetti & Brusa until he joined his brothers in business.

THE FIRM OF NOVELLI & CALCAGNI, Barre, is composed of Samuel Novelli and Joseph G. Calcagni. Mr. Calcagni was born in Bisuschio, Lombardy, February 10, 1874, where he learned his trade. In 1891 he went to Cleveland, Ohio, and worked six years for James Broggini, and then moved to Barre, where he was employed three years by Barclay Bros., when he and Elli Corti formed a partnership. One year later Mr. Novelli died and William Corti, brother of Elli, entered into partnership and the firm name was changed to its present title. They were first located in Marr & Gordon's shed, and one year later moved to a shed in Burnham's Meadow, but soon outgrew their quarters and built their



"CHAMPION" POLISHING MACHINE,
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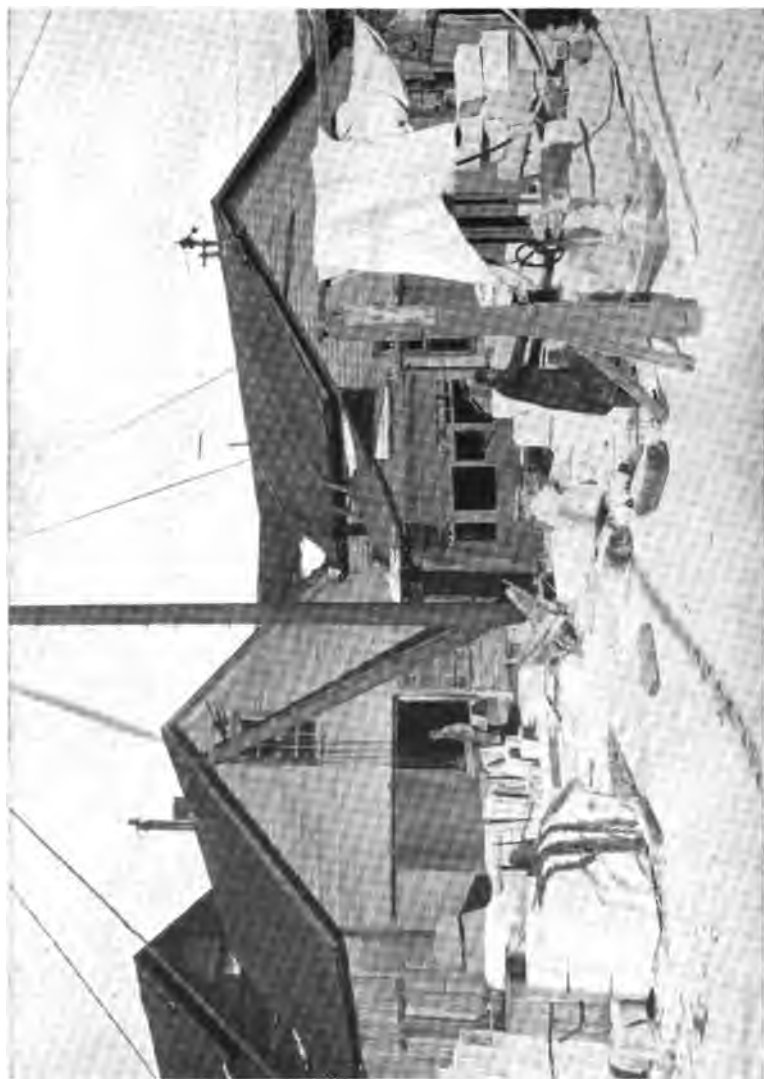


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FAYETTE T. CUTLER,



R. V. STORER,



ALLARD G. FAY,

Firm of Cutler, Storer & Fay, Barre, Vt.

Brothers. In 1905 they bought the plant formally known as Milne, Clarihew & Gray, on Blackwell street. Since that time they have made vast improvements to the property and have installed modern machinery for doing all kinds of monumental work, their specialty being statuary and carving. They employ 45 men and their plant is run by 150 horse power steam plant. The beautiful Crucifix illustrated on another page is a sample of their work, other notable pieces being the bronze and granite monument erected in Higginsville, Mo., by the Missouri Division of the United Daughters of the Confederacy.

ALEXANDER MILNE, Circle, near South Main street, Barre, was born at Aberdeen, Scotland, November 1, 1855. He was apprenticed to John Frazier & Son as stone cutter, serving four years. He also worked three years as a journeyman, when he went to Quincy, Mass., and worked for Hardwick & Sons about nine months. He moved to Folks Island, Me., remaining there nearly two years, when he went to Barre and was employed by Mackey & Simpson two years. He then became associated in business with J. Connon under the firm name of Milne & Connon and was located on Granite street two years, when he bought Mr. Connon's interest. After a few years in business alone he joined W. S. Littlejohn under the firm name of Littlejohn & Milne, and located on Mill street. Seven years later they built the plant now occupied by Littlejohn, Odgers & Milne, and he continued with the firm until he sold his interests. Milne & Littlejohn bought the Magoon farm quarry of forty-five acres, which they operated until 1908, when they sold to George Libertson. In 1910, he bought his present plant from McMinn & Son, and now employs about twenty-two men, and does a business in vault and monument work of all kinds which is sent to all parts of the country. Mr. Milne served in the Barre Board of Aldermen 1905-06, and is a member of Granite Lodge, Granite Chapter, St. Alderemar Commandery and Mt. Sinai Temple, F. and A. M., Clan Gordon, the Burns Club and the Vincitia Club.

Alexander M. Milne, his son, was born at Barre, September 7, 1890. After graduating from the Barre High School and the Albany Business College he joined his father in the business.

ALBERT STORREY JONES, Smith street, Barre, is a native of Thurloton, Sommersetshire, England, where he was born March 3, 1866. His parents brought him to the United States in 1867, and



PLANT OF THE WORLD GRANITE COMPANY, EAST BARRE, VT.



W. G. HEBERT.



JOSEPH LADRERIE.

Firm of Hebert & Ladrerie, Barre, Vt.

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JAMES K. PIRIE,
Graniteville, Vt.



VIEW OF THE J. K. PIRIE QUARRY, GRANITEVILLE, VT.



CUT BY J. P. CORSKIE & SON, BARRE, VT.



CHARLES J. LECLAIR.



PATRICK E. MCNULTY.

Firm of LeClair & McNulty, Barre, Vt.

located at Portland, Me., but shortly after moved to Lowell, Mass. Ten years later they went to Nebraska, remaining there two years, when they went to South Thomaston, Me., where Albert began the stone-cutting trade with Jameston, Herrington & Ames, but finished his apprenticeship with C. J. Hall of Belfast, with whom his father, John L. Jones, a skillful statue cutter, was also employed. He then worked as journeyman, principally on building work in various parts of the country until 1889, when he returned to South Thomaston three years, later he worked eight years for Norcross Bros. at Stony Creek, after which he went to Barre, and was employed by Jones Bros.' Company until 1900, when he engaged in business for himself, locating on West street, where he remained one year, then moved to Burnham's Meadow, staying there until 1908, when he and Mr. Stevens bought their present plant. This modern plant is operated jointly by Messrs. Jones and Stevens, although their business is entirely separate. Together they employ forty hands and use a 65 horse power electric motor, which, beside other appliances, operate two polishing wheels, two air compressors and two surface cutters. His trade is principally medium size work which goes all over the country. Mr. Jones is a member of Knox Lodge, F. and A. M., and a member of the Finance Committee of the First Baptist Church of Barre.

JOSEPH D. OSSOLA AND S. DUNGHI are proprietors of the Barre Monumental Yards, Barre, which they established in the old Wells-Lamson plant, where they began business about a year ago after remodeling and equipping the plant with modern machinery, including a granite saw and three polishing wheels. They employ thirty hands and do all kinds of work, but especially rock-face work from original designs.

Mr. Ossola and his partner were born in Italy at Vijou, the former December 20, 1868. He learned his trade at Vijou and attended a drawing school, where he received first prize in architectural drawing. He went to Barre 23 years ago and was employed by Forsythe & Ingram until 1889, when he went West to Chicago, and was employed on the Library and Masonic buildings and then returned to Barre, after the strike of 1892, and was employed by McDonald & Buchan. He remained there until a few years ago, when he opened the Barre Monumental Yards with his partner, Mr. Dunghi, and moved to their present quarters.

Mr. Dunghi was born January 30, 1871. He attended drawing school from the age of 12 until he was 22, when he received a silver medal in the moulding department. In 1894 he went to Barre and was employed by Barclay Bros., and then by the Harrison Granite Company, after which he united with his partner and took up his work at the Barre Monumental Yards.

THE FIRM OF GIUDICI BROS. & Co., Barre, is comprised of Desiderio, Frank and James Giudici, and Cornelio Trentini. All the members of the firm were born in Saltrio, Italy; Desiderio, March 4, 1863; Frank, December 22, 1890; James, December 24, 1867, and Mr. Trentini, June 29, 1869.

Each learned their trade in Italy, after which they worked several years as journeymen, both in Europe and the United States. The firm was established in 1899 in a shed at the foot of Granite street, where they were located until 1904, when they built their present modern plant. It is 206x58 feet in dimensions and is equipped with all the latest, improved tools and appliances for doing first-class work, including polishing wheels and a 20-ton crane, the motive power being an 80 horse-power electric motor, and they give employment to 55 men. They do all kinds of monumental and mausoleum work, which is sent to all parts of the country.

Among the more notable pieces they have cut may be mentioned the Gehner mausoleum at St. Louis; Marshall monument at Nashville, Tenn.; Campbell-Clark shaft monument, Coldwater, Mich.; Friedman-Blau vault, Cleveland, O., and the Beaty vault at Lakin, Kan.

Desiderio Giudici has served as a member of the Board of Directors of the National Association of Granite Manufacturers.

HARLEY DEXTER STEVENS, Barre, is a native of East Hardwick, Vt., where he was born January 28, 1875, and is a direct descendant from the Pilgrims. His great, great grandmother was a sister of Daniel Webster. When a child he moved to Walden, Vt., where he lived until 1895, when he went to work for the Hardwick Granite Company at Hardwick, Vt., as an apprentice stonecutter, and after learning his trade he moved to Groton and then to Williamstown, and later to Barre, where he worked several years at his trade. In 1903 he went to Woodlawn, New York City, where he was employed for three years, returning to Barre again in 1906, when he started in the granite business with T. J. Denning, doing business under the firm name of Stevens & Denning. In 1908 Mr. Denning retired from

the firm, and since then Mr. Stevens has run the business alone. He does all kinds of monumental manufacturing, including high-class carving, hammered and polished work. Mr. Stevens is a member of the Granite Lodge, No. 35, F. and A. M., and also of the Granite Chapter, No. 26, and the Vincitia Club of Barre, Vt.

THE FIRM OF ROSSI & CASELLINI, Barre, was established in 1905 by Philip Rossi and Mr. Casellini, they locating in the Leland Granite Company's shed. In 1911, Mr. Casellini retired from the firm and he was succeeded by Alfred Buzzi, but the firm name was retained. They moved to the Guidici Bros. & Co. shed in 1909, where they are now located and where they give employment to nine men. They make a specialty of rock face carving, a sample of which is shown in the illustration which speaks eloquently for the high quality of their work.

Mr. Rossi is a native of Canton, Cicerio, Switzerland, where he was born September 11, 1879. He learned his trade in Italy, where he worked 16 years, then going to Barre, and was employed 13 years by Barclay Bros. After a visit to his native place he returned to Barre and formed a partnership with Mr. Casellini. He is a member of I. O. O. F.

THE FIRM OF GOODWIN & MILNE, Barre, was established in August, 1910, by the purchase of the business of A. E. Lebourveau & Co., of which firm Mr. Goodwin was a partner. Their plant is fully equipped with modern machinery, for the manufacture of all kinds of monumental work, and is centrally located on Burnham's Meadow. James J. Goodwin was born in Moretown, Vt., October 20, 1872, and after leaving school entered the office of the Empire Granite Company. Later he was employed by E. W. Bailey & Co., Montpelier, Vt., for a period of ten years, leaving them to accept the position of office manager of the Granite Exchange, an office conducted by the Granite Manufacturers' Association. One year later he was appointed assistant postmaster at the Barre postoffice, holding that office for a term of four years, when he was elected to the office of secretary and treasurer of the Consolidated Quarry Company. He has also held the same position with the Barre Medium Granite Company. Mr. Goodwin is a member of the B. P. O. Elks and of the Knights of Columbus.

Alexander A. Milne is a native of Aberdeen, Scotland, where he was born April 13, 1880, and came to Barre in 1889. He learned the stonemason's trade with his uncles, James K. and Alexander

Milne. He has been employed at St. Paul, Minn., and other places for ten years prior to entering the manufacturing business.

This firm, while comparatively young, has in the short time gained many business friends by their upright business methods.

THE TROW & HOLDEN pneumatic tools for working granite have constantly kept in the foremost rank of progress and are fully guaranteed. As we have already said, the principle of all valveless pneumatic tools is the same, but very different in results. The "Barre" carving tool is made for carving and lettering and all fine work in granite, marble and other stone. As in all the heavier pneumatic tools designed for use with higher air pressure and where longer and more powerful stroke is required, their improved bushing tool is made in the valve type. For roughing down and bushing small surfaces, pointing, line cutting, fluting columns, etc., this tool is indispensable, especially in small plants not operating a surfacing machine. In large sheds also, its usefulness is almost unlimited. It does away with hand peaning, thus paying for itself many times over in saving of labor and facilitating fulfillment of hurry-up orders. The greatest saving of all is in fine pointing of small surfaces. There is much less danger of cutting below the desired level than in hand work. On small blocks, such as for building purposes, end work can be done by the "Barre" bushing tool without turning the stone. This tool is also very handy for putting "washes" on base stones instead of setting up for surfacing machine.

The "Barre" pneumatic plug driller is of the valve type, and is made with automatic push throttle handle, and with the new spring lock as on their bushing tool. The driller is designed and recommended only for drilling plug holes, and other drilling and channeling in quarries and sheds. It is not intended for bushing.

The "Barre" surfacing machine is of the valve type, efficient, durable and economical in air consumption. With machines not having exact adjustment the arm dropping down makes it almost impossible to bush a smooth surface. There is no undue strain on the operator and the fine adjustment enables him to acquire speed and facility in handling large work.

This company also manufactures tools and fittings for pneumatic and hand work with the same care and expert supervision given to all their work.

The firm was established in 1885 by C. E. Hobbs & Co., in a small building on Granite street. They were succeeded in 1890 by

John T. Trow and Clerk H. Holden, under the firm name of Trow & Holden, and in 1894 moved to large quarters on the same street. In 1905, William M. Holden, son of Clerk, bought the business, but continued to use the old firm name. The Stafford & Holden estate was bought in 1906, and enlarged and remodeled into the spacious and up-to-date plant now occupied.

SAMUEL GERRARD, successor to Stephens & Gerrard, Barre, is a native of Peterhead, Scotland, where he was born February 22, 1866. He worked in a quarry until 1889, when he went to Concord, N. H., and was employed by Mr. Blodgett and by John Swenson about one year, at which time he moved to Barre and worked for Mortimer & Gerrard, his brother James being a partner. James died in 1891, and the firm dissolved, and Mr. Gerrard found employment with William Casey for nine years. He then worked a few months in the South and West, when he returned to Barre and formed a partnership with Mr. Stephens, and located in a small shed in Blackwell street. Later they moved to the Perry & Jones shed, where they remained about eighteen months, when they built the present modern plant, the shed being 80x156 feet in dimensions. He employs forty hands and does all kinds of monumental work. Among the more noteworthy pieces he has cut may be mentioned the Confederate monument at Shrievessport, La.; the Woodman monument at Dallas, Texas, and the Altizer mausoleum at Huntington, W. Va. Mr. Gerrard bought his partner's interest in 1912. In 1903 they bought the Excelsior quarry at Graniteville, which they have developed to such an extent that 25 men are employed there. Mr. Gerrard is a member of Granite Lodge and Chapter, F. and A. M., and Clan Gordon.

ANTOINE AND MARY L. BURKE compose the firm of Burke Brothers, the other brother, Frank H., died May 13, 1908. Antoine is a native of Sciota, N. Y., where he was born, February 21, 1865. His first experience in the granite business was in Burlington, Vt., where he worked six months for A. Philips. He then went to Barre and learned his trade with Edward French, with whom he remained until 1892, when he and his brother formed a partnership and located on North Main street. Shortly afterward they moved to Smith's Meadow, and in 1899 built their present modern plant, the shed being 190x65 feet in dimensions. It is fully equipped with all the latest appliances, including polishing wheels, all of which is oper-

ated by electric motors aggregating one hundred horse power. Sixty men are employed, and they do a large business in all kinds of cemetery work. Mr. Burke is a member of the K. of C., C. O. F., and Modern Woodmen of America.

HOYT & LEBOURVEAU COMPANY, Barre, was established in 1900 by George Hoyt and Willis A. Lebourveau. The former is a native of Prospect, Me., where he was born September 17, 1861. He learned his trade with the Bordwell Granite Company and worked in various places until 1894, when he went to Barre and was in the employ of Harrison Granite Company. Here he formed acquaintance with Mr. Lebourveau and soon after went into partnership. Mr. Hoyt is a member of Star Hope Lodge and Encampment, I. O. O. F., of Vinal Haven, Me. He was alderman for city of Barre in 1909-1910.

Mr. Lebourveau was born at Learned Plain, P. Q., June 9, 1868. In 1887 he began his apprenticeship with Wells & Lamson of Barre, and later was nine years with the Harrison Granite Company, when he left to enter into business with Mr. Hoyt in a small shed on Burnham's Meadow. Mr. Lebourveau is a member of Granite Lodge and Granite Chapter, F. and A. M. Two years after starting in business they bought a larger plant on Smith's Meadow and remained until 1906, when they sold out and built their present shed on Willey street in North Barre. Here they bought a tract of land and built a shed 184x84 feet in dimension, equipped with Sullivan compressor, Lane electric crane, polishing mill and complete equipment for doing a granite business. They employ about thirty men.

March 13, 1911, the firm was incorporated and took the name of Hoyt & Lebourveau Co. E. J. Batchelder, a draughtsman and bookkeeper, who had worked in various firms in Barre and vicinity, was taken into the firm as secretary and treasurer and the business carried on in an up-to-date manner. Mr. Batchelder was born in Plainfield, Vt., May 21, 1883. He is a member of Arcadia Lodge and Halcyon Encampment, I. O. O. F., of Plainfield, Vt.

The officers and members of the firm are George Hoyt, president; Willis A. Lebourveau, vice-president; E. J. Batchelder, secretary and treasurer. Incorporated for \$45,000, under the laws of the State of Vermont, with paid-up capital of \$25,000.

THE ROUX GRANITE COMPANY, Barre, was established May 1, 1912, by Ludger R. Roux, Joseph Fortier and Romwald Genest,

when they bought the plant formerly occupied by Brown, Carroll & Co. on Blackwell street. They manufacture all kinds of monumental work, but make a specialty of polished and hammered work. Their plant is well equipped, including a polishing wheel, and they employ 18 men.

Mr. Roux was born in Danville, P. Q., October 19, 1883. He worked at his trade with Dessereau & Co., Barre, six years, when he was admitted a partner, remaining in the firm until 1911, when he became associated with his present company. He is a member of No. 3,317 Lodge, I. O. O. F., and No. 218 Lodge, St. John Baptist.

Mr. Fortier is a native of Halifax, P. Q., where he was born January 6, 1882. He learned his trade with Jones Bros Company, where he was employed twelve years. He is a member of No. 218 St. John Baptist, and Lodge No. 3317 I. O. O. F.

Mr. Genest was born in St. Henry, P. Q., November 11, 1871. He is a member of the No. 218 St. John Baptist and Lodge No. 3317, I. O. O. F.

WILLIS ABBOTT HALL, Barre, is a native of Unity, N. H., where he was born November 22, 1873. He worked on a farm in Unity, N. H., until nineteen years of age, when he learned stone cutting in the shed of Richard Messer of Claremont, N. H. Three years later he moved to Barre, and worked for Hopkins & Huntington four years, and for Mortimer & Campbell for a like period, when he started in business in a shed in Burnham's Meadow. He manufactures a general line of cemetery work which is sent all over the country. A specimen of his work is printed on another page. Mr. Hall is a member of Arura Lodge, A. O. U. W.

JOHN MCCOLL, Blackwell street, Barre, was born in Dunnegal, Ireland, December 20, 1857, and came to this country, locating at Quincy. He learned the stone-cutting trade with Daniel Hayes, after which he worked as journeyman in Missouri, California, New York, Maine and Massachusetts for about eight years, when he went to Barre and worked for Jones Bros.' Company until 1897, when he went in business for himself, locating in Blackwell street. Afterwards he became associated with Thomas Carroll under the firm name of McColl & Carroll, and built the plant now occupied by the Roux Granite Company. Later he sold his interest and started in business for himself in his present location. He employs eleven

men and does medium and large work, which is sent to all parts of the country. Mr. McColl is a member of the Ancient Order of Hibernians and Knights of Columbus.

JAMES T. MARRION AND JOHN O'LEARY, Barre, organized their business under the firm name of Marrion & O'Leary, in 1906, locating on Granite street, where they remained until 1909, when they built their present modern plant, which covers an area of 13,000 square feet, and where they give employment to 50 men. They manufacture cemetery work of all kinds, from markers to mausoleums, which they send to all parts of the country.

Mr. Marrion is a native of Fitzwilliam, N. H., where he was born August 31, 1868. He learned his trade with Jones Bros.' Company and worked as a journeyman until 1901, when he went into business on Granite street. Six years later he took as partner Mr. O'Leary.

Mr. O'Leary was born in Richibucto, N. S., April 3, 1868. He learned his trade with the Hollowell Granite Company, after which he worked on the stone work of the Congressional Library, Standard Oil Building, Brooklyn Bridge Arch and the Capitol at Albany. He was later employed by Jones Bros. until joining Mr. Marrion. Mr. Marrion is vice-president of the Granite Manufacturers' Association, and is also one of the Board of Directors. Mr. O'Leary is Grand Knight of the Barre Knights of Columbus Council, No. 401.

THE FIRM OF ROSS & RALPH, Barre, is composed of Alexander Ross and George Ralph, and was established in 1906. Both are natives of Aberdeen, Scotland, the former being born May 19, 1873, and the latter November 4, 1872. Mr. Ross served an apprenticeship of five years in Scotland, after which he went to Quincy. A few months afterwards he moved to Barre and was employed by Innis & Cruikshank, and later by Burley & Calder, when he joined Mr. Ralph in business. He is a member of Operative Lodge of Scotland, F. and A. M., Loyal Star Lodge of Scotland, I. O. O. F., the Red Men, Clan Gordon, and A. O. F.

JAMES AND WILLIAM SCOTT compose the firm of Scott Bros., Barre. They are natives of Aberdeen, Scotland, James being born January 30, 1858, and his brother, February 21, 1861. The former was apprenticed for five years to James Hunter of Aberdeen, and in 1881 went to Vinal Haven in the employ of the Boardman Granite



CUT BY JAMES C. ROBERTSON, BARRE, VT.



PLANT OF CANTON BROTHERS, BARRE, VT.



PLANT OF HOYT & LEHOUEVEAU CO., BARRE, VT.



CUT BY ROSSI & CASELLINI, BARRE, VT.



ARTHUR ANDERSON.



ANTHONY FRIBERG.

Firm of the Scandia Granite Company, Barre, Vt.



PLANT OF BECK & BECK, BARRE, VT.



THE LATE WILLIAM J. CARROLL,
Firm of Carroll & McNulty, Barre, Vt.



CUT BY REDMOND & HARTIGAN, BARRE, VT.

Co., and one year later moved to Quincy and worked two years for Miller & Luce. He worked in Barre and Burlington until 1885, when, with his brother, he went to Missouri, South Carolina, and Louisville, Ky., where they worked until 1886, and was then employed by Jones Bros. Co. until 1900, when he and his brother formed the present partnership. He is a member of Operative Lodge of Scotland, F. and A. M. He served in the Board of Aldermen during 1889-1890.

William learned his trade with Adam Mitchell & Co. in Aberdeen, and in 1882 went to Quincy and worked for Miller & Luce until 1883, when he moved to Barre, and was employed by Jones Bros. Co. He was a member of the Barre School Committee in 1906, 1907 and 1908.

They have a well equipped plant and employ 20 men in the manufacture of all kinds of monumental work which is sent all over the United States.

WILLIAM COLE & SONS, Barre, established their business in 1900, at which time William Cole and his sons, William, Jr., and George, formed a partnership, and located at the foot of Blackwell street, where the business is still carried on. Mr. Cole came from England, where he was born January 31, 1844, to Barre, in 1870, and engaged in business with John Robin, and O. Morciasi, under the firm name of Robin & Co., which, after Mr. Robin sold his interest, was changed to Cole & Morciasi, and the name remained the same up to 1900, when George and William Cole bought Mr. Morciasi's interest. William Cole died March 18, 1911, and George died in 1908, since which time William, Jr., has been sole proprietor.

The plant has been enlarged and remodeled and equipped with pneumatic tools and machinery for doing medium-size monumental work, while he employs 20 hands. He is a member of Granite Lodge, F. and A. M.

THE FIRM OF CHARLES BIANCHI & SONS, Barre, was established in 1892 by Charles, John and Joseph Bianchi, under the firm name of Bianchi Bros. Later Charles bought his brother's interest, and in 1898, his sons, Angelo and Antonio, were admitted to the firm, and the name changed to Charles Bianchi & Sons. In 1905 they bought the Mutch & Calder plant on West Second street, which contains about three acres of land. They employ 80 men and make

all kinds of monumental and vault work, which is sent all over the country. Charles Bianchi was born in Viggiu, Italy, August, 1850, where he learned his trade, and in 1892 went to Barre. His sons are also natives of Viggiu, Angelo being born January 30, 1882, and Antonio, October 26, 1884. They went to Barre in 1897, and learned their trade with their father.

LOUIS SASSI, Granite street, Barre, Vt., is a native of Saltrio, Italy, where he was born March 27, 1877. He served three years' apprenticeship in Italy, and seven years at fine carving with Fever, Renard & Co. of Chasigless, Yonne, France. He then worked two years on the continent, when he returned to Saltrio and remained three years, at which time he went to Barre, Vt., and was employed by Novelli & Calcagni three years. He next worked for Mr. Carusi five years, when he went in business for himself, locating on Blackwell street, and six months later moved to his present address, where he employs nineteen men, and does monumental work of all kinds. Among the principal stones he has cut may be mentioned the Sweeney Monument in Ohio, the Schneider in Ohio, Fulgraff at Woodlawn Cemetery, New York, the very fine statue, column and step monument for Greiser at Holbrook, Cinn., and the Celtic Cross for O'Dwyer at Buffalo, N. Y.

THE FIRM OF J. P. CORSKIE & SON, Barre, was established in 1889 by J. P. Corskie, a native of Braco, Aberdeenshire, Scotland, where he was born in 1847. After serving an apprenticeship at stonecutting he came to this country in 1870 and located in West-erly, R. I. A few months later he went to Richmond, Va., and was married in 1872 at Norfolk, Va. He then moved to Vinal Haven, Me., where he remained until 1884, when he went to Barre and worked at his trade until entering business for himself. In 1900 his son, J. M. Corskie, was admitted a member of the firm, when the firm was given its present title.

They have a modern plant and do all kinds of monumental and mausoleum work, a sample of which is printed on another page.

JAMES C. ROBERTSON, Division street, Barre, is a native of Udney, Aberdeenshire, Scotland, where he was born January 25, 1878. He learned the stone cutters' trade in his native country, being apprenticed four years with George M. Stalker, after which he worked as journeyman until 1900, when he came to this country and located at Quincy. He worked nearly two years for Smith & Marshall, when he went to Barre, and was employed five years with

J. P. Corskie & Son, and then became associated in business with Alexander Milne, under the firm name of Milne & Robertson, with a plant in Burnham's Meadow. Soon afterwards they moved to his present quarters, and in 1909 Mr. Robertson bought his partner's interest and has since conducted business alone. He employs 11 men, and his plant is run by a 25 horse power motor. He manufactures medium size and large monuments of a fine grade, which are sent to all parts of the country. Mr. Robertson is a member of Operative Lodge of Scotland, F. and A. M., and Clan Gordon.

THE STAR GRANITE COMPANY, Barre, was established in 1907 by G. Valli, Chas. Lamperti and E. Dunghi in a shed on Blackwell street, after which they moved to Burnham's Meadow and from there to their present larger quarters off Granite street. On April 1, 1911, Mr. Dunghi retired from the firm. The present plant is well equipped for doing all kinds of cemetery work, their specialty being rockface, carving and statuary. They employ about twenty of the most skilled granite cutters. Among the most noteworthy pieces cut by them may be mentioned statues at La Crosse, Wis., and Fond du Lac, Wis.; a fine carved piece at Winona, Minn.; at Princeton, Ill., and at Red Bank, N. J.

Mr. Valli was born in Roderò, Italy, November 10, 1872, and after having given up business in Italy, where he was managing a firm of his own with his father, came to Barre in 1897. He worked a few years for other firms until he formed a partnership with Mr. Lamperti and Mr. Dunghi. Mr. Valli is an active member of the Woodmen of America.

Mr. Lamperti was born in Arcisate, Italy, May 27, 1866. He served six years at his trade in Italy, and in 1889 came to this country and located at Stony Creek, Conn., after which he moved to Concord, N. H., and then to Barre. The success of the development of the Star Granite Company is due to the first-class work they cut and to the activity and artistic taste of the members of the firm.

THE FIRM OF BECK & BECK, Barre, Vt., is composed of Lothar C. and his cousins, Werner E. and John A. Beck. They are natives of Hohenzollern, Germany, where Lothar was born April 28, 1872; Werner, May 25, 1873, and his brother John, December 31, 1870. Lothar went to Barre in 1890, and learned stonecutting from C. H. Moore & Co., with whom he was employed six years, when he formed a partnership with Werner. He is a member of Hiawatha Lodge, Past Chief and Past Captain of the Canton, I. O. O. F.

Werner went to St. Johnsbury, Vt., in 1884, and later attended school in Fairbanks, until 1890, when he moved to Barre, where he learned his trade with C. H. Kennerson, for whom he worked until 1896, when he joined his cousin and bought in the business. He also has held the various chairs in the I. O. O. F. John learned the blacksmith trade and was admitted a member of this firm in 1900. He has held the several chairs in I. O. O. F. They own one of the oldest stone sheds in Barre, which they have equipped with modern machinery, and they employ twenty-five men. Their electric motor power aggregate is 113 horse-power, and they furnish compressed air to seven stone manufacturers.

THE SCANDIA GRANITE COMPANY, Barre, has for proprietors Anthony Friberg and Arthur Anderson, both natives of Gladsax, Sweden. Mr. Friberg was born September 27, 1886, and in 1905 went to Barre and began his apprenticeship with Littlejohn & Milne, Leaving their employ he worked for a time for Sweeney Bros. of Montpelier, but completed his apprenticeship in the employ of Robins Bros. He then worked for the Scandia Granite Company, the proprietors being Hanson & Anderson, until November, 1910, at which time he formed a partnership with Arthur Anderson and bought their business. He is a member of Red Men and North Star, Order of Vasa.

Mr. Anderson was born October 12, 1887, and when a child went to Lowell, Mass., and later to Milford, Mass., and from there to West Chelmsford, where he lived until he was 18 years of age. He then went to Barre, and learned his trade with Littlejohn & Milne, Jones Bros. Co. and Robins Bros., and worked as journeyman until entering business with Mr. Friberg.

They do all kinds of monumental work, for which their plant is well equipped.

DINEEN BROTHERS & Co., Barre, is composed of William P. Dineen, D. Mondini, A. Cecchini, Victor Riu and Emil Riu, and the business was established in 1901 by Mr. Dineen, his brother Stephen, and John Redmond, with a plant on Granite street. Seven years later Mr. Redmond left the firm, and April 19, 1911, Stephen died, and the present firm name was taken. They do all kinds of monumental work, but make a specialty of carving. They employ 12 men.

Mr. Dineen is a native of Ballyheggne, Ireland, where he was born June 6, 1875. He went to Montpelier in 1896, and worked for Dillon & Haley five years, when he moved to Barre, and became

associated with this firm. Mr. Riu was born in Trieste, Austria, July 18, 1887, and in 1906 went to New York, where he worked for Norcross Bros. and for Bradley & Sons, Long Island. Later he moved to Barre, and was employed with this firm until admitted a partner one year before the death of Stephen Dineen. He is a member of C. O. F., A. O. H., and K. of C.

JOHN REDMOND AND JOHN J. HARTIGAN compose the firm of Redmond & Hartigan, Barre. Mr. Redmond is a native of Wexford County, Ireland, where he was born March 1, 1873, and when 18 years of age came to this country and settled in Cambridge, Mass. He was employed by McDonald & Sons about five years, when he went to Barre and worked for T. Eagan and Dillon & Haley. Later he went in business with Dineen & Co., which continued ten years, at which time he sold his interest to J. J. Goodwin and established the firm of Redmond & Co. In May, 1911, the present firm was organized.

Mr. Hartigan was born in Galway, Ireland, August 25, 1869, and in 1888 moved to Quincy, Mass., where he learned stone cutting. He went to Barre in 1898, and was employed by Jones Bros. 12 years, then joining Mr. Redmond in business. He is a member of K. of C. They do all kinds of monumental work, a sample of which is pictured on another page.

THE FIRM OF GASPARELLO BROS., West Second street, Barre, is composed of Antony and Benjamin Gasparello. They were born in Taurasi, Italy, the former November 14, 1880, and the latter January 14, 1881. Antony came to Boston when 16 years old, then went to Quincy and learned stone cutting in the firm of Ferrari Bros. He worked there over three years, then went to Williamstown Vt., and after three months engaged with his brother in business. A few months later they went to Barre and located in Depot square, and in November, 1910, bought their present plant. They employ 14 hands. They operate a retail store at Conandaiqua, N. Y., which is in charge of his brother.

GREARSON & LANE Co., Barre, make a specialty of column turning and polishing for the trade, their plant being especially equipped for this work, operating five cutting lathes 22 1-2 feet long and 8 feet in diameter, also five large polishing wheels, all of which are run by a 60 horse power electric motor, and they employ 25 men. They have recently invented a new lathe by which the cutting is begun on the outside of the diameter and is worked

toward the centre; in other words it cuts crosswise instead of lengthwise.

The firm consists of Fred Augustus Gearson, his brother James, and Willis A. Lane. The brothers were born at St. George, N. B. Fred was for years employed as engineer in mill and quarry work, and in 1890 went to East Barre, where he worked for I. W. Bates & Co. on lathe work until 1894, when he and his brother went in business in East Barre, under the firm name of Gearson Brothers and continued it until 1906, when Mr. Lane was admitted to the firm, and the firm name changed. In 1908 they built their present plant. He is a member of I. O. O. F. James learned his trade with Tate, Meaton & Co., with whom he worked until he joined his brother in business. A sketch of Mr. Lane's career will be found under a separate title.

WILLIS A. LANE, Burnham's Meadow, Barre, besides being the proprietor of the Granite City Polishing Machine Shop, is the inventor of the Granite City polishing machine, a light polishing machine and a new idea grindstone frame, all three machines being illustrated on another page. The Granite City polishing machine is the first made that will swing the entire circle, thereby enabling a double bed to be polished. It is also the first one on which the arms can be raised or lowered by power. These machines are used all over this country and Europe, one firm, the Vermont Marble Company of Proctor, having 27 of them in operation. It was patented in 1890.

The machine used for light polishing was designed especially for the retail dealer who wishes to do a limited amount of polishing. The back shaft is 8 feet 2 inches long and 1 and 7-16th inches in diameter. The pulleys are all 4-inch face and 8 and 10 inches in diameter. The drive-back will take regular wheels and a 16-inch wheel. The arms, which are raised or lowered by hand, have a reach of about 5 feet, and it will cover a surface of 10 or 12 feet. He has recently brought out a portable electric polishing machine of one or two horse-power, as wanted.

The grindstone frame was designed to run a stone eight inches thick by five feet in diameter for cutter discs for stone turning lathes. Being automatic in its motions the stone moves back and forth while the cutter revolves on the stone, thus grinding a true bevel. Some of the features of these machines have been copied, but the inventor claims his machines will give entire satisfaction.

Mr. Lane is a native of Barre, Vt., where he was born August 4, 1861. He established a stone-polishing business in 1885 in a shed on Granite street, where he did custom polishing for several firms, but discontinued it in 1893 and started a column-turning plant which he operated seven years, when he sold out to the late Thomas Williams. He then bought his present plant, where he runs a machine shop for general repairing and manufacturing, also for supplying compressed air to four stone plants. He also rents one polishing mill and two circle sheds for cutting stone. In 1905 he became a partner of Mr. F. A. Gearson, under the firm name of Gearson & Lane, an account of whose business will be found on another page.

ANDREW RESTELLI AND ALEXANDER CRUICKSHANK comprise the firm of Restelli & Cruickshank, Barre. Mr. Restelli was born in Milan, Italy, November 30, 1869, and served seven years at the art of moulding. He came to the United States in 1888 and worked in Pennsylvania and New York until 1889, when he moved to Barre and was employed by Thomas Williams, Marr & Gordon and the North Barre Granite Company about one year each. In 1898 he became associated in business with Mr. Palanghini under the firm name of Palanghini & Restelli, which continued two years, when the firm dissolved partnership and Mr. Restelli conducted the business alone until 1910, at which time Mr. Cruickshank became associated with him and they moved to their present plant. They make a specialty of high-grade carving and moulding, but do all kinds of monumental work, giving employment to 13 men.

Mr. Cruickshank is a native of Huntly, Scotland, where he was born November 1, 1854, and came to this country in 1885.

THE VALZ GRANITE COMPANY, Barre, is composed of Constantino and Guido Valz, cousins, both being natives of Montesinaro, Italy, the former being born October 11, 1878, and the latter, September 23, 1883. Constantino went to Fitzwilliam, N. H., in 1893, and learned stonecutting from Victor C. Valz, his uncle, for whom he worked eight years. He then moved to Barre, and after working four years formed a partnership with his cousin in a shed on the meadow, where he remained two years, when they moved to their present plant. It is fully equipped with modern appliances and gives employment to 21 men. Their specialty is medium and large size work, which is sent all over the country. The bas-relief statue

monument erected at Witten's Mill, Va., to Mustard, is an excellent sample of their work. Guido went to Fitzwilliam, N. H., in 1890, and later went to Barre and joined his cousin in business.

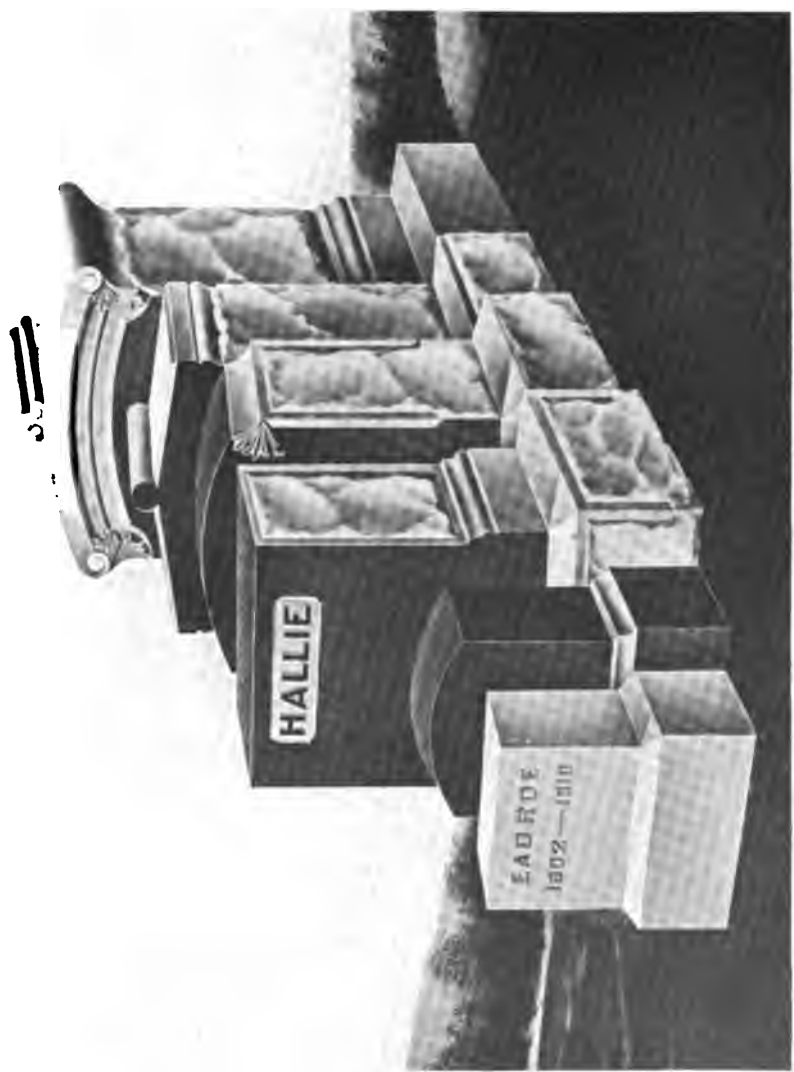
FRANK AND ROLFO PARNIGONI comprise the firm of Parnigoni Bros., Barre. They are natives of Gaggiclo, Italy, the former being born September 7, 1867, and the later June 25, 1871. Frank served an apprenticeship of five years and then worked nine years in Switzerland, when in 1892 he went to Westerly, R. I., where he was employed by the Smith Granite Company 19 years. He then moved to Barre and worked as a journeyman until forming a partnership with his brother and leasing their present plant. They are manufacturers of and dealers in Barre granite monuments, tablets and general cemetery work, making a specialty of carving and lettering. They employ ten men.

Rolfo also is an experienced granite man and went to Barre ten years ago.

THE FIRM OF H. P. AGOSTINES & Co., Barre, was established in 1892, in a shed on Granite street and was run by them until 1903, when August Agostines succeeded to the business. He is a native of Vinici, Italy, where he was born January 31, 1877. When 12 years old he went to Hallowell, Me., where he learned the trade of statue carver. He worked as journeyman several years, also as bookkeeper, when he became proprietor of this establishment.

He employs ten men and manufactures all kinds of monuments, a specialty being made of statuary and carved work, which is sent to all parts of the United States. Mr. Agostines worked for some time in New York City and Long Island, after which he made an extended visit to his native place.

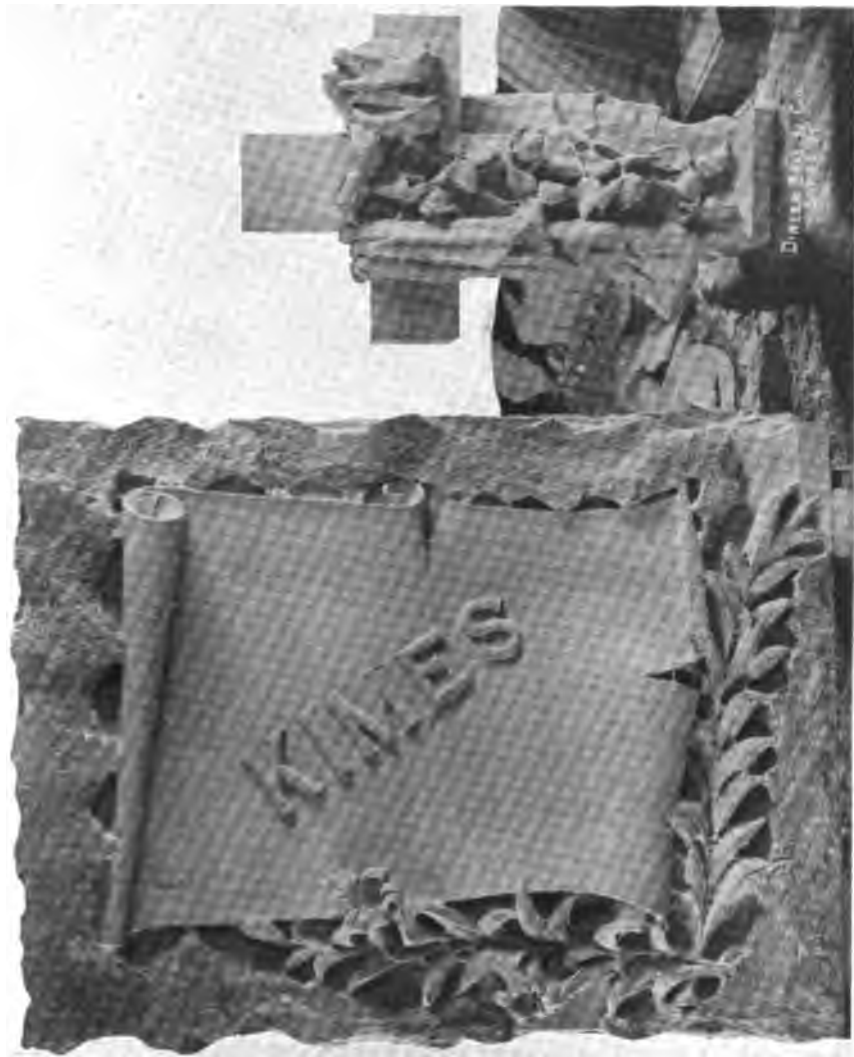
THE NORTH BARRE GRANITE COMPANY, Barre, is composed of Baptist Lucchina and Alexander Duncan. The firm was established in 1895 by Mr. Lucchina, and in 1896 he consolidated with Davidson & Duncan. John Davidson and Mr. Archie retired in 1900, leaving the proprietorship to the present partners. They built their plant in 1902, and equipped it with up-to-date appliances for doing all kinds of monumental work, their specialty being statuary and carving, and they employ 40 men. A sample of their carving is illustrated on another page, the stone on which is cut calla lilies, roses, Easter lilies and passion flowers is of unsurpassed excellence.



CUT BY THE ROUX GRANITE COMPANY, BARRE, VT.



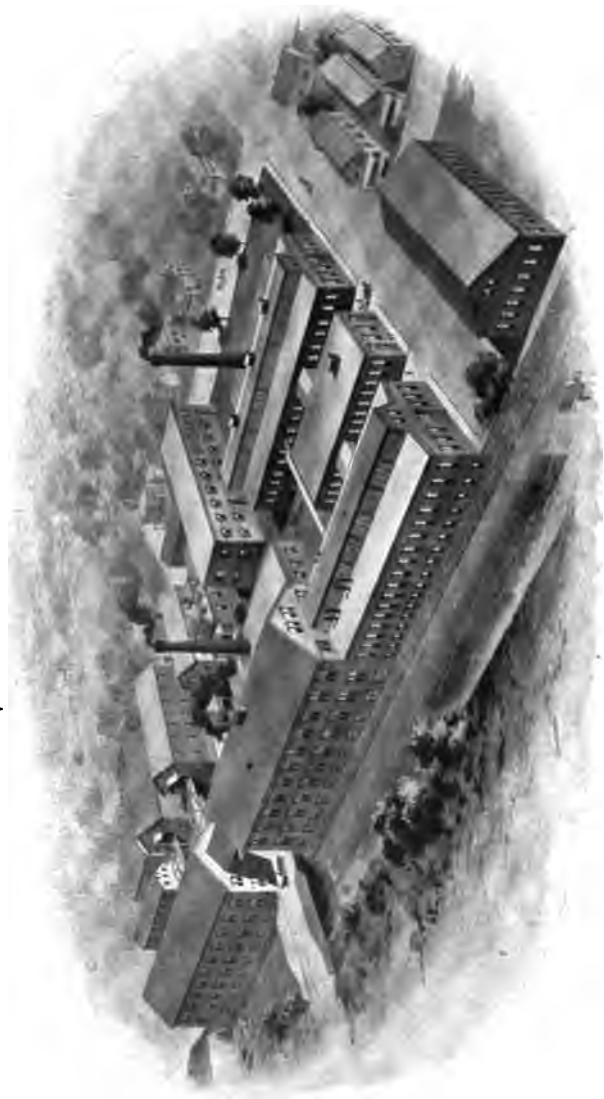
PLANT OF CHARLES BIANCHI & SONS, BARRE, VT.



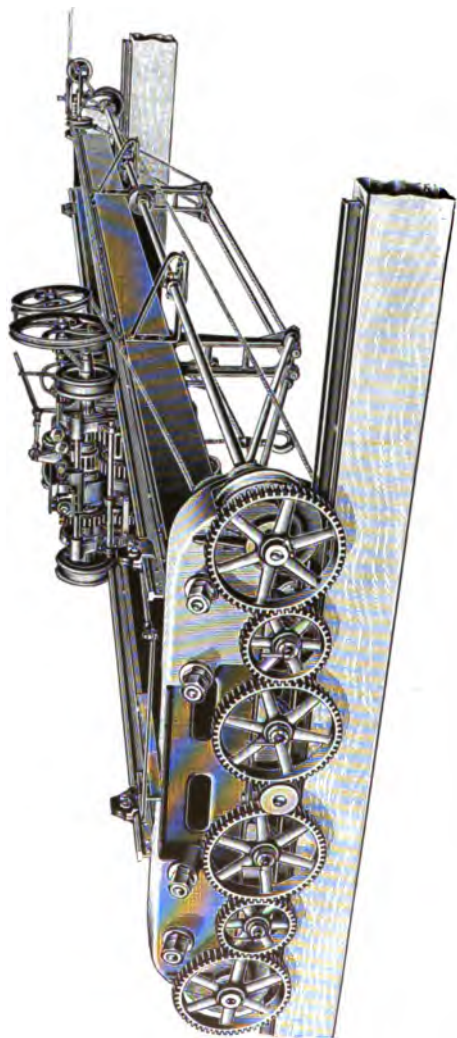
CUT BY DINEEN BROTHERS & Co., BARRE, VT.



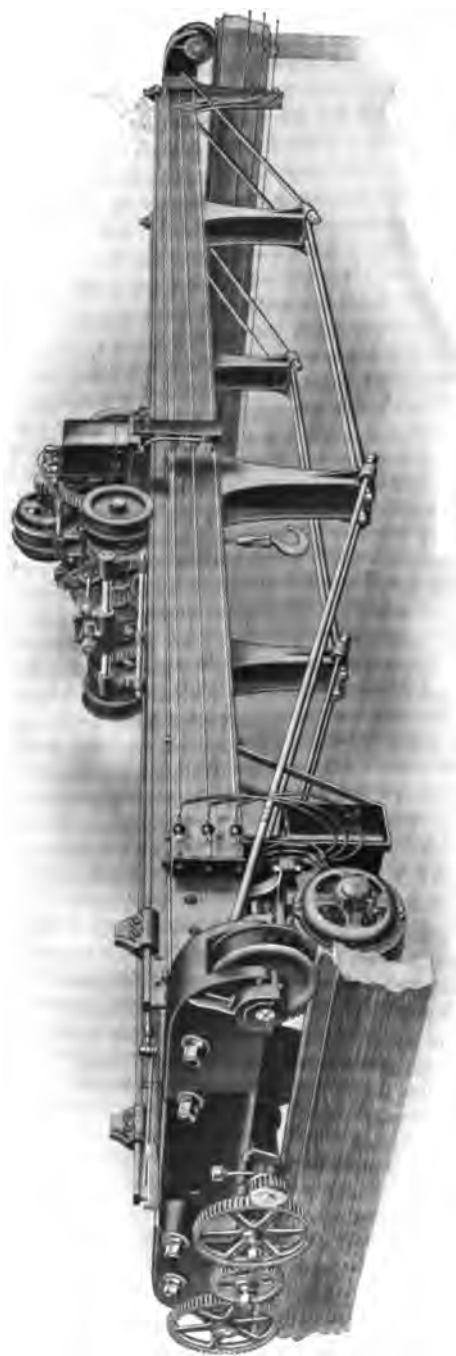
PLANT OF ROSS & RALPH, BARRE, VT.



PLANT OF THE LANE MANUFACTURING COMPANY, MONTEPELIER, VT.



ROPE-DRIVEN TRAVELING CRANE, MADE BY THE LANE MANUFACTURING COMPANY.



ELECTRIC CRANE, BUILT BY THE LANE MANUFACTURING COMPANY.



CUT BY THE BIANCHI GRANITE COMPANY, MONTPELIER, VT.



A 28-FOOT SHEET IN THE WETMORE & MORSE GRANITE COMPANY'S QUARRY,
MONTPELIER, VT.



THE BINDLEY MAUSOLEUM, PITTSBURG, PA.
Made from stock from the Wetmore & Moore Granite Co.'s Quarry, Massachusetts. Vol.

Mr. Lucchina is a native of Varese, Milan, Italy, where he was born September 30, 1870. After learning his trade in Italy he worked as a journeyman four years in Milan, where he got his education in a drawing school, and then enlisted in the army, going into service in Italy as sergeant in artillery. He went to Barre in 1895 and worked for Archie & Co. a few months, when he entered this firm. He is a member of Iroquois Tribe of Red Men and president of the Italian Citizens' Club.

Alexander Duncan was born in Drum, Aberdeenshire, Scotland, November 30, 1872. After an apprenticeship of about three years with Robert Smith he went to Quincy, Mass., and was employed by Field & Wild about one year, when he moved to Montpelier and worked for Stafford, McGlin & Carey six months, then going to Barre in the shed of Clarihew & Gray, and later with C. E. Tayntor & Co., where he remained until going in business with Mr. Davidson, afterwards forming the North Barre Granite Company. He is a member of Granite Lodge, F. and A. M., a member of Mt. Sinai Temple, A. A. O. N. M. S., and was held all the chairs in I. O. O. F.; is assistant adjutant-general in the Canton for Vermont, is a member of Red Men, K. of P., D. O. K. K. and Vincitia Club.

THE FIRM OF PALAORO BROTHERS, Granite street, Barre, is composed of Agostino and Fortunato Palaoro. Both were born at St. Orsola, Austria, the former March 1, 1889, and the latter August 15, 1890. They came to this country September 25, 1906, and settled in Barre, where they were employed by Scott & Co., with whom they learned the stone-cutters' trade. They were ambitious, so that as soon as they had become master workmen they decided to start in business for themselves, which they did, in 1908, engaging quarters at the above address. They do medium and large sized work which is sent to all parts of the United States, and they employ six men.

THE FIRM OF JAMES SECTOR & Co., Barre, is composed of James Sector and Louis Rivolta. Mr. Sector is a native of Kincordineshire, Scotland, where he was born May 25, 1859. After serving an apprenticeship of four years with McDonald & Benzie, he worked eight years as journeyman. He went to Barre in 1889, and was employed by Littlejohn & Barclay three years, when he formed a partnership with Frank Leith under the firm name of Sector & Leith. A few months later Mr. Leith left the firm and Mr. Sector

conducted it alone until 1896, when he was employed a few months as manager for Leland & Hall. He then entered business on his own account and moved to his present plant December 15, 1908.

Mr. Rivolti was born in Italy in 1873, and after learning his trade went to Barre in 1898, where he worked at the banker until 1909, when he was admitted to this firm.

They employ 22 men and do all kinds of high class monumental work.

THE ART GRANITE COMPANY, Barre, is composed of Joseph Farrari, F. Brogginì and C. Brogginì. Mr. Farrari was born in Porto Ceresio, Italy, July 9, 1870, and after learning his trade worked at the banker nine years in Germany and Switzerland, when he went to Barre and was employed by Giudici Bros. In March, 1910, he became associated in business with his partners and rented a part of the Novelli & Calcagni shed, where they remained one year, when they moved to their present location.

F. Brogginì is a native of Brienno Us, Italy, where he was born October 16, 1873. He worked at his trade in Italy 16 years, and in 1896 went to Barre, and was employed by Marr & Gordon and Rizzi Bros., until going in business.

C. Brogginì was also born in Brienno Us, January 15, 1883, and in 1893 moved to Barre, where he worked for Marr & Gordon and the North Barre Granite Co. until admitted a member of this firm.

They make all classes of monuments, their specialty being floral and bas relief work, for which their plant is well adapted. They give employment to eight men.

THE VANETTI GRANITE COMPANY, Barre, is composed of Natale Vanetti, Angelo M. Cilla, Cæsar Piola and Frank Fraquelli. Mr. Vanetti was born in Casale Litta, Italy, April 30, 1868, and learned his trade in Varese. He went to Barre in 1894, and worked for Jones Bros Co. six years, when he started in business under the firm name of Vanetti & Brusi, which continued three years. In 1909 he became associated with his present partners, and in 1911 they moved to the plant they now occupy.

Mr. Cilla is a native of Robbio, Italy, where he was born September 29, 1881, and in 1899 went to Barre, where he learned his trade with E. Biatti & Bros., where he remained three years. He

then was employed by Vanetti & Brusi and Presbrey-Coykendall Co. until becoming a member of this firm. He is a letter cutter.

Mr. Piola was born in Inverio-Inferiore, Italy, June 17, 1881, and after learning his trade went to Barre in 1908, where he was employed by Rizzi Bros. three years and a short time for another firm, when he joined his associates. He is a carver and statue cutter.

Mr. Fraquelli was born in Irola, Switzerland, in 1880. He worked in Cleveland, Ohio, and then went to Barre in the employ of Barclay Bros., after which he engaged in business with Mr. Apiani under the firm name of Apiani & Fraquelli, which continued until the Vanetti Granite Co. was organized.

They make a specialty of carving and statue work and give employment to 22 men.

JAMES T. HAYES, Barre, was born at St. Albans, Vt., March 26, 1881. He learned his trade at Cross Bros., Northfield, after which he moved to Barre, and four years later formed a partnership with Chas. H. Barton, under the firm name of Barton & Hayes, and located on Granite street. Later the firm was dissolved and Mr. Hayes engaged in business with F. W. Bancroft, under the firm name of Bancroft & Hayes, which business was sold three years later to the Lillie Granite Co., after which Mr. Hayes started in business alone. He manufactures monuments of medium size and gives employment to five men.

MITCHELL & MCKERNAN, Depot square, Barre, is composed of James Mitchell and James McKernan. Mr. Mitchell was born in Aberdeen, Scotland, December 9, 1881, and learned his trade there with Arthur Taylor, for whom he worked five years. He went to Barre in 1904, finding employment with Marr & Gordon. He worked in Maryland and Texas two years, when he returned to Barre, and in 1909 started in business with R. S. Stewart and Mr. Kernan, under the firm name of the Barre Turning Works, which later was changed to the present firm name, Mr. Stewart having retired. He is a member of Clan Gordon and the Eagles. Mr. McKernan was born in Aberdeen, April 12, 1864, and learned his trade with D. Frazier & Sons. He came to Barre in 1893, and worked for Duncan Bros., after which he went to Quincy, but returned to Barre and worked for McIver & Matherson 11 years, when he went in business. He is a member of Granite Lodge, F. and A. M., and the Eagles.

GEORGE E. BOND, Barre, is a native of West Topsham, Vt., where he was born February 8, 1866. He worked on a farm in early life and then went to Barre in 1888, and learned stone-cutting with C. H. More & Co. He worked for the Harrison Granite Co. from 1892 to 1895, when he became associated in business with John Martinson, under the firm name of Bond & Martinson. This firm continued one year, when it was dissolved and in 1905 he formed a partnership with W. G. Kidder, under the firm name of Bond & Kidder, and in 1909 Mr. Bond bought his partner's interest.

He does all kinds of monumental work and gives employment to 25 men. He is a director and one of the members of the Barre Medium Granite Quarry.

THE PEERLESS GRANITE COMPANY, Barre, is composed of the following gentlemen: Henry W. Carr, George Jurras and his cousin, Lui Jurras. Mr. Carr was born in Bradford, Vt., May 17, 1880, and learned his trade with D. Davers and W. D. Kidder, of Barre. Later he was employed by Annis & Cruickshank, and then moved to Concord, N. H., where he worked for the New England Granite Co. Some time afterwards he returned to Barre in the employ of Jones Bros.' Co., staying with them five years, when he took up a course of modelling and carving. He then worked for Harry Batolli until he and his brother organized the firm of W. S. Carr & Co., which continued until 1911, when his brother bought his interest. The Peerless Granite Co. was established January, 1912.

George Jurras is a native of Austria, where he was born October 5, 1882. He learned his trade there, and in 1899 went to New York city and worked for Bradley & Son, marble manufacturers, two years, and a like period in other places in the State, when he went to Barre and was employed by various firms. He then moved to Montpelier and worked for the Houston Granite Co. a few months, when he returned to Barre in the employ of Dineen Bros.' Co., staying with them until becoming a member of this firm.

They have a well-equipped plant for doing all kinds of monumental work and their output is sent all over the United States. A sample of their work is pictured in another page. Together with their cutting shed they operate a three-wheel polishing plant, and give employment to 18 men.

LUKE B. GALLAGHER, of the firm of L. B. Gallagher & Co., Barre, was born in Burlington, Vt., April 6, 1870. He was a cabin boy on a lake yacht until 1892, when he went to Barre and learned his trade with Merriam & Warden. Two years later he was employed by Burke Bros., where he remained ten years, then going to Albany, where he worked on the State Capitol two years. He then returned to Barre and started in business at his present location. He makes all kinds of monuments of medium size, a sample of his work being the Gallagher monument in St. Joseph's Cemetery, Burlington, Vt. He is a member of C. O. F. and the Owls.

CHARLES AND WILLIAM OLLIVER, brothers, comprise the firm of Olliver & Co. of West street, Barre. Charles was born in St. Blazey, County of Cornwall, England, December 4, 1875, and came to this country in 1888, and located in Westerly, R. I., where he learned his trade with Peter Reinhalter. Afterwards he worked as journeyman in Connecticut and Maine until 1898, when he went to Barre and worked for the Harrison Granite Company two years, when he established himself in business with his brother on Blackwell street. Two months later he moved to Depot square, and about six months later came to his present location. He is a member of and secretary of Manchester Unity Lodge, I. O. O. F., and Sons of St. George. William was born at St. Blazey, January 10, 1879, and learned his trade with his brother. He is also a member of Sons of St. George, Manchester Unity Lodge, I. O. O. F., and Granite Lodge and F. and A. M.

MONTPELIER.

The city of Montpelier, capital of the Green Mountain State, was settled in 1787 by Colonel Jacob Davis, an emigrant from Massachusetts. It was formally organized in 1791, with a total population of 113, of which but 27 were legal voters. In November, 1805, the town, by an act of the Legislature, was made the capital of the State. The site chosen for the State House was a part of the Jacob Davis estate, and was contributed by Thomas Davis, a son of Colonel Davis, the founder. The wooden building was completed in 1808 and this was replaced by the present structure in 1836. It is of classic architecture in the form of a Greek cross, and built of Barre granite. It was partially destroyed by fire in 1857, but was rebuilt in substantially the same style the following year. The distinguishing feature of the central building is a noble portico, supported by massive granite columns, some seventy feet in height.

The town derived additional distinction in 1811 by being made the shire of Jefferson, changed in 1814 to Washington county. In 1848, diverse material and political interests led to a division of the town by act of the Legislature. Thereafter the town of Montpelier, with an environing area of some 4,000 acres, retaining the old name, and the remainder the designation of East Montpelier.

The village of Montpelier was incorporated in 1855. The city of Montpelier was incorporated by a special act of the Legislature, passed in 1894. The most important amendments to the charter were made in 1898. Under one act an adjacent portion of the town of Berlin was annexed to the city, February 1, 1899, and constituted the sixth ward. It comprises all that portion of the city west of the Winooski River.

THE WETMORE & MORSE GRANITE Co.'s quarry, situated on the highest point on Millstone Hill, 1025 feet above Barre, was opened by John Edward Parker in 1862, upon a farm which he and his father bought from the Thompson estate for \$2150. From him the firm purchased seven acres for \$2500. This, together with several acres, form the Harrington farm, and smaller pieces form the Lewis Keith and Merrill Eastman farms constitute the 32 acres of quarry of the Wetmore & Morse Granite Co. In 1884 it was the largest quarry in Barre, its output being about 70,000 cubic feet. In 1877 they built a shed on the site of the old Jackson & Townsend carriage repository, afterwards occupied by E. L. Smith and

Wells, Lamson & Co. The sheds which they built on the Templeton Meadow in 1880 were the first modern ones in Barre, being equipped with a steam derrick and all conveniences for handling stone. A polishing shop was also used in connection with the plant. Some few years later Henry H. Wetmore bought out his partner, Azro D. Morse, and founded the Wetmore & Morse Granite Co. of Illinois, but he met with financial difficulties. In 1889 the present company was incorporated by Albert Johonnott, president; W. E. Adams, vice-president; F. A. Dwinell, secretary, and F. L. Eaton, treasurer, the directors being F. E. Smith, Albert Johonnott, W. E. Adams, H. H. McIntyre, H. H. Wetmore, F. M. Corry and F. A. Dwinell. The capital stock was originally \$80,000, but was increased in 1890 to \$100,000. For several years they operated one of the largest cutting plants in the country, but they decided to devote their entire attention to the production of stone in the rough, whereupon they sold the plant to Charles H. More, and he in turn to Sweeney Brothers. The site is now occupied by several modern cutting sheds.

In describing the quarries it will be well to take the power house as our starting point. Here we find a clean and commodious structure containing three large Ingersoll-Rand air compressors, giving a total of 2067 cubic feet of air per minute, divided as follows: 700, 841 and 526 cubic feet respectively. These are operated by two 150 horse power General Electric motors, and one 75 horse power Westinghouse motor. The engine house is so arranged as to make it possible to increase the air capacity by the addition of another large compressor whenever it may be found necessary. Further along in the building is the steam plant which operates the three steam hoists and pumps. This is operated by a 150 horsepower boiler. The electric power used in the quarry is furnished by the Corry-Deavitt-Frost Company of Montpelier, of which company both Mr. Corry and Mr. Deavitt are president and treasurer, respectively, of the Wetmore & Morse Granite Co., and the controlling interests. This is one of the best quarry power plants in the United States. Further along on the ridge are two blacksmith shops which contain two forges in each with large trip hammers run by air. Also machinery and tools for making the necessary repairs. The derrick equipment consists of three steam and three electric hoists, two of 75 and one of 50 tons capacity, and each is driven by a 55 horse-power General Electric motor.

The granite is handled by cars of three tons capacity hauled by a two-drum hoist driven by a 35 horse-power electric motor over a long track which disposes of the refuse where it is entirely out of the way and will never interfere with future operations in extending the quarry openings. Four different spur tracks of the Barre Railroad give the quarry most admirable facilities for shipping out stock. Four of the loading derricks are of 50 tons, and two are of 75 tons capacity, respectively. They have made extensive additions at the east end of the quarry, where they have opened an immense tract of granite. More than 135 men are employed under the supervision of Andrew Olison, the general manager. The secretary and assistant treasurer is Frank G. Wheaton, whose ancestors were pioneers in the Barre granite industry. The Hon. Frank M. Corry is president; F. A. Dwinell, vice-president, and E. H. Deavitt, treasurer. The board of directors consists of Albert Johonnott and Wm. F. Corry, besides the above-mentioned officers. The main office is located directly opposite the Pavilion Hotel, Montpelier.

IN THE EARLY DAYS of the granite industry as carried on in this region the cutting and finishing (when not done in the open air) was done in sheds arranged in semi-circular fashion and served by a centrally-located boom derrick. This machine, however, could only drop the blocks of stone in front of the open doorway, after which they had to be rolled into the shed by hand, a task of some difficulty in the case of stones of large dimensions.

About the year 1888 the firm of McDonald & Buchan erected the first power traveling crane ever set up in Barre or its vicinity, the machine traveling bodily up and down the yard on rails set on high trestles at each side, the long car, or bridge, carrying a short car, or trolley, on which the hoisting machinery was placed, and by means of which the machine could carry a stone to any desired portion of the yard or shed and drop it in position there.

This crane, which is still in service, was built by the Lane Manufacturing Company of Montpelier after designs made in their drafting department under the personal supervision of Mr. McDonald and copying to some extent the cranes which had long been in use in Scotland. The machine was driven by a "flying rope" passing from a driving sheave at one end of the track around two sheaves on the end of the crane, thence to a tightener sheave at the other end of the track and back to the driving sheave.

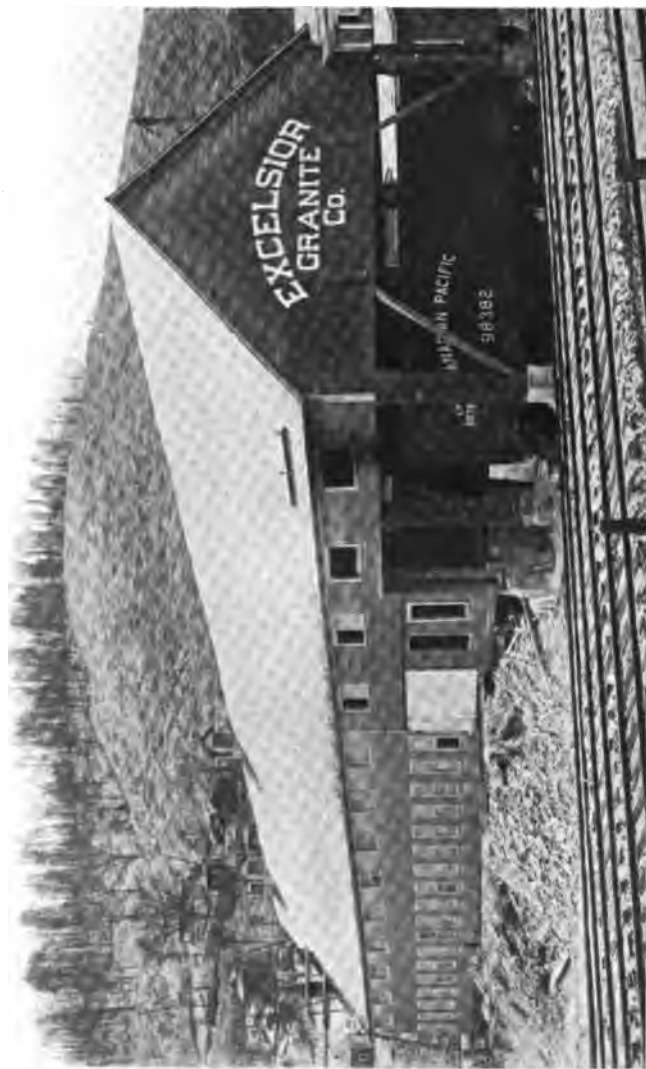
The train of gearing operating the bridge trucks was driven



PLANT OF THE JOHNSON GRANITE COMPANY, MONTPELIER, VT.



PLANT OF J. JURRAS & COMPANY, MONTPELIER, VT.



PLANT OF THE EXCELSIOR GRANITE COMPANY, MONTEPELIER, VT.



PLANT OF THE NATIONAL GRANITE COMPANY, MONTPELIER, VT.



PLANT OF BONAZZI & BONAZZI, MONTEPELIER, VT.



PLANT OF DAVIS BROS., WEST BERLIN, VT., ALSO SHOWING WATER
POWER AND POWER PLANT.



CUT BY DAVIS BROTHERS, WEST BERLIN, VT.



CUT BY PROVOST & SON, WEST BERLIN, VT.

by one of these sheaves on the end of the bridge, while the other drove a square shaft which extended from end to end of the bridge and from which the trolley mechanism received its power. The various motions of the crane were started, stopped and reversed by means of metal friction clutches cast integral with the gears, the intermediate members being driven by the square shaft before referred to. This mechanical movement—the square shaft—is still in use in some makes of cranes, but is ill suited to use in a stone-cutting plant on account of its liability to throw oil.

In an effort to do away with the square shaft one of the employees of the Lane Company, Mr. John B. Anderson, conceived the idea of running a flying rope around sheaves on the trolley as well as on the bridge, and this method of crane driving was patented by him and developed and perfected by the Lane Manufacturing Company in the cranes which they still manufacture under these patents.

The first of these was erected in the sheds of the Wetmore & Morse Co. at Montpelier and, as in the case of the McDonald crane, both the bridge and the trolley were built of wood, though even in this first machine the friction clutches of the McDonald crane were replaced by paper-and-iron friction wheels that gave a much smoother operation.

While this crane was a success in most respects it took up so much head room over the runway rails that it was later replaced with the more compact and improved type having an iron trolley car and shown in the cut. This newer type of the Anderson crane became very popular, was sold in large numbers by the Lane Company, sent into many parts of New England, and elsewhere, and a great many of these machines are still in daily operation.

When the firm of Machie & Sons built the large sheds they wished to outfit these with two Anderson cranes of 40-ton capacity, while the crane just referred to was made only in the 20-ton size.

In these heavy and powerful machines the Anderson crane was brought to its present type, still more compact and perfect, and shown in the cut on another page. This is the most up-to-date and approved rope-driven traveling crane, and is made by the Lane Company in 10, 20 and 40-ton sizes and shipped into practically all parts of the United States where such machines are used.

By this time electric power was being used to a large extent in the Barre and Montpelier stone sheds, and the electric traveling cranes were in general use in some lines of manufacturing; they

were so costly and so complicated that none had yet been brought into this region. Seeing this opportunity the Lane Company brought out their Lane electric crane, which is substantially the Anderson rope crane with the rope and sheaves replaced by two non-reversing electric motors.

This adaptation enabled them to offer a new type of machine which was at the time without any new and untested features, as the motors had been used for years in other lines and the balance of the crane had been thoroughly tested in connection with the Anderson patent rope drive. As other electric cranes have three motors, all of the reversing type, the Lane crane has not only sold at a much lower price, but proved much more economical in the use of current, as the heavy motor armatures running constantly in one direction act as fly wheels of no mean capacity, while in other makes those heavy and swift-turning armatures must be stopped and again brought up to speed for each change of movement. Furthermore, this method of applying electricity to the Anderson crane makes it an easy matter to rebuild cranes of that type which have been in use for years, taking off the rope and its sheaves and putting the motors in their place.

THE SUPPLY OF ELECTRICITY throughout the Barre district, which includes Waterbury and Montpelier, is chiefly in the hands of the Consolidated Lighting Company and the Vermont Power and Lighting Company. The former has been in operation since 1885, and the latter since the spring of 1907, but although the business is under common management, the plants are operated separately. The systems are temporarily provided with a tie line on the low tension sides, so that one can help the other in case of emergency.

The Consolidated Company operates a hydro-electric station at Bolton Falls, 22 miles down the Winooski river from Barre, and a reserve steam plant on the outskirts or "Pioneer" section of Montpelier. Substations are located in Waterbury, Montpelier, Barre and Graniteville. They also serve East Barre, South Barre and Williamstown. The Vermont Company has a single water-power generating plant at Middlesex, six miles north of Montpelier. This supplies energy to substations in Montpelier and Barre. The power market in Barre and Graniteville calls for over 5000 horse power with a possible maximum development of 10,000 horse power. Independent steam plants with coal costing about \$6.00 a ton are here displaced with electricity, selling at from four to two cents per kw. hour. The

total connected power load of the two companies aggregates 5917 horse power. They have about 2800 lighting customers and a connecting lighting load of 40,000 lamps. The maximum capacity at the Bolton Falls plant is 3500 horse power, of the Middlesex 2000 horse power, and of the Pioneer steam plant 3000 horse power. They are now installing an additional 4000 horse power steam turbine at Pioneer, giving a total steam reserve of 7000 horse power.

Power is used in the quarries for the driving of air compressors, drills, operation of derricks, hoists and the haulage of "Blondons" or grout cars. The largest single installation in a quarry is at Websterville, in the establishment of Wetmore & Morse. This outfit uses six motors, aggregating 474 horse power, consisting of a 150 horse power, three-phase, 440-volt induction motor driving a horizontal air compressor, a 35 horse power hoist, a 30 horse power hoist, a 20 horse power grout motor, a 15 horse power derrick motor, and a 4 horse power derrick motor.

In the stone sheds the power requirements include the driving of air compressors and a considerable variety of special machinery used in the manufacture of monuments and mausoleums. The most representative installation of this kind is at the sheds of Barclay Brothers.

The load at the granite quarries and sheds in Barre and vicinity is exceedingly even during the day. The lighting load from 5 to 7 P. M. reaches a maximum of 1000 kilowatts, or but one-fourth the maximum during the day. The street lighting load of the company includes 109 arcs in Montpelier, 111 in Barre and 275 series incandescents in the smaller towns.

The Consolidated Company was incorporated by a special act with a capital of \$1,000,000. In 1912 the property was purchased by the C. H. Tenney Company, who also operate electric lighting and power plants in Malden, Melrose and Haverhill, Mass. The officers are: A. B. Tenney, president; D. E. Manson, vice-president; H. D. Sands, second vice-president; E. A. Bradley, treasurer, and H. D. Larrabee, manager. The officers and salesrooms are at 20 Langdon street, Montpelier.

PATCH & Co., quarry owners, Calais and Montpelier, date the beginning of their business to the work done by Timothy Kelleher and Charles Lawrence, who in 1895 quarried granite on the H. H. McLoud farm in Calais, a small town adjoining Barre. Mr. Kelleher died and the Co-operative Granite Company was organized, they

buying the farm and a quarry on Ascutney Mountain in Windsor, from which the Windsor green granite is quarried. In 1897, the present firm was formed by Walter E. Patch, Charles Lawrence and Clarence S. Whittier, Mr. Whittier being the owner of the quarry land, and they are operating their property with a modern plant, and a large force of skilled men. The stone is very popular for hammered and carved work, being a finer grained stone, and peculiarly adapted to that class of work, and is sent all over the country. A number of imposing mausoleums and monuments have been made of this stock. Among them may be mentioned the Paine Chapel and the Elizabeth Price Celtic Cross in Oakwood Cemetery, Troy, N. Y.

Mr. Patch is a native of Morrisville, Vt. He learned the quarryman's trade with E. L. Smith & Co., and Lynch Brothers, where he was employed until joining this company. He is a member of F. and A. M., and I. O. O. F.

Mr. Lawrence was born in Montpelier, March 22, 1844, and was engaged in the ice business until becoming a member of this company.

Mr. Whittier was born in Montpelier, August 12, 1856, and was a provision merchant until assuming his present position as manager of the company. He is a member of all the Masonic Societies, having been Past Commander of Mt. Zion Commandery, also Past Potentate of Mt. Sinai Temple.

THE G. R. BIANCHI GRANITE COMPANY, Montpelier, was established by Giulio R. Bianchi in 1895. Mr. Bianchi is a native of Milan, Italy, where he was born Feb. 27, 1866. He served a ten-years' apprenticeship in Italy as sculptor and then went to Westerly, R. I., and was employed by the Batterson Granite Company, but remained there only six months, when he moved to Quincy and worked for Fred Barnicoat a short time, going from there to Barre in the employ of Jones Bros. Co. Two years later he formed a partnership with Mr. Salvetti, under the firm name of Salvetti & Bianchi, and located on Granite street. About two years after he bought his partner's interest, and continued the business alone until 1899, when he moved to Montpelier, and rented a shed, but this property was destroyed by fire soon after, and he built his present plant, the shed being 265x75 feet in dimensions. They use all the latest improved machinery, and give employment to 60 men. Their specialty is statuary and carved monumental work from original

and copyrighted designs, a sample of which is printed in another page. He is a member of Unity Lodge, I. O. O. F., and the Italian Athletic Club.

Harry K. Bianchi, his son, was born in New York City, November 7, 1887, and studied in Malano, Italy, after which he was employed by Walton Bros. He then became associated with his father in charge of the office. He is a member of I. O. O. F., Italian Athletic Club and Woodmen of America.

P. OTTO JOHNSON is proprietor of The Johnson Granite Company, Montpelier. This firm name was taken September, 1910, when Mr. Johnson bought the interest of his partner, Mr. F. J. Robar, the name until then having been F. J. Robar & Company. There are 20 men employed, and he operates a 20 horse power electric motor, which runs his equipment of modern stone cutting machinery. Barre granite is the principal stone used, although when other granites are required they are easily obtained and finished at the plant. The general run of the work is monumental, and many excellent pieces have been furnished locally as well as for more remote sections of the country.

Mr. Johnson was born at Karlskrona, Sweden, September 27, 1868, and arrived at New York, April 27, 1893. He located at Milford, Mass., and obtained employment with the Milford Pink Granite Company, where he learned the trade of stone cutting. After four years at Milford he moved to Quincy, Mass., and worked there several months. He then went to Montpelier and entered the employ of C. H. More & Co. There he worked at the bankers until 1905, when a partnership with Mr. Robar was formed. In 1898, while working at Quincy, he married Miss Elfrida Thuren, also a native of Sweden. They, with their four sons and two daughters, now reside at No. 6 Foster street, Montpelier. Mr. Johnson is a member of the Order of Vasa, having served one term as District Master, and has three times represented his lodge at the annual district meetings.

THE LILLIE GRANITE COMPANY, Montpelier, is a private company, at the head of which is Dean K. Lillie, a native of Winooski, Vt., where he was born April 15, 1876. After leaving school he was apprenticed in 1895 to the stone cutting trade with R. M. Frasier, Montpelier, and later worked for Frasier & Broodfort until 1903, when he started in business for himself under the firm name of D. K. Lillie, with shed near the depot in Montpelier. He soon

required larger quarters and moved to the Wetmore & Morse shed which after three years he sold to Jellyman & Jones. The present firm name was adopted soon after occupying the Morse plant, and after leaving there they moved to their present quarters on Smith street, Barre. Their plant is thoroughly up to date and fully equipped with machinery for doing all kinds of cemetery work, a specialty being made of markers or "hickey." It is an interesting fact that the term "hickey" originated with a Frenchman employed in their works. They employ about 30 hands, and send their goods all over the country. They also are large importers of Scotch granite. Mr. Lillie is a member of the Elks.

E. BONAZZI, the sole proprietor of the firm of Bonazzi & Bonazzi at Montpelier, is a native of Baveno, Italy, where he was born June 4, 1878. He was graduated from the Reale Accademia of Belle Arti di Brera, in Milan, after an eight-years' course in sculpturing. He then traveled in several parts of Europe until 1900, when he went to Montpelier, where he was engaged as a sculptor for two years.

One of his masterpieces, "The Little Margaret," which is erected in the Green Mountain Cemetery at Montpelier, is admired by many.

In 1902 he entered the granite manufacturing business in Montpelier, under the firm name of Bonazzi & Bonazzi, the partnership consisting of three members, D. Peduzzi, F. Bonazzi and E. Bonazzi. In 1906 this partnership was dissolved and E. Bonazzi bought the entire business, which is still operating under the same firm name. His up-to-date plant is 150x64 feet in dimensions and is equipped with all the modern requirements, suitable for large or small work, and gives employment to 32 men.

He has executed some really remarkable statues and carved monuments, among which may be mentioned the James Bridger portrait memorial to James Bridger, erected at Salt Lake City, and the artistically carved monument, "Christ the Shepherd," which is in Chicago, Ill.

THE EXCELSIOR GRANITE COMPANY, Montpelier, is a co-partnership composed of Antonio H. Fasola, John Calcagni, and Joseph Perolini. Mr. Fasola was born in Augers, Italy, September 23, 1882, and came to this country in 1888, and located in Barre. He was a clothing clerk three years, and then began the stone-cutters' trade, first with Comolli & Co., and later with Abbiati Bros. He then took

up stone carving and worked for Jones Bros.' Company, Harrison Granite Company, and Smith Brothers, until April 1, 1904, when he formed a partnership with Mr. Calcagni and Joseph Induni, under the present firm name, and located in Bolster's circle, Barre. They were burnt out July 17, 1904, after which they went to sheds in Blackwell street, remaining there until October 1, 1904, when they moved to East Second street. Two years later they again moved, this time occupying part of the Nevelli & Calcagni plant, where they remained until September, 1909, when they bought their modern shed. It is 196x40 feet in dimensions, and is equipped with the latest tools and appliances, including polishing wheels, the motive power being 75 horse power electric motors. They employ forty-five men, and do all kinds of monumental work. Mr. Fasola is a member of the American Woodmen, Foresters of America and the Condors.

John Calcagni is a native of Arcisate, Lombardy, Italy, where he was born August 7, 1873. He came to the United States with his parents when eight years of age and located in Westerly, R. I. In 1888 he went to Groton, Conn., and learned stone cutting with T. W. Casey, where he worked several years, then moved to Cleveland, Ohio, and was employed by James Broggini & Bros. In 1896 he went to Barre and became associated with Mr. Fasola.

Joseph Perolini was born in Casassco, Italy, August 2, 1870. He learned stone cutting in Italy, and went to Barre in 1892, where he was employed by Hunton Bros., after which he worked ten years for Much & Calder. In 1909 he bought Mr. Induni's interest in the business. He is a member of the American Woodmen.

THE FIRM OF DILLON & HALEY, Montpelier, is composed of John B. Dillon and James S. Haley. Mr. Dillon is a native of Bristol, Addison County, Vermont, where he was born May 6, 1859. After leaving home he located at Vergennes, Vt., working four years in a kaolin works. He then went to Middlebury, Vt., and was employed in a marble quarry, but left it to learn the granite cutter's trade at the Blue Mountain quarry in South Ryegate. After an apprenticeship of four years he worked as journeyman in Quincy, St. Johnsbury, Buffalo, Montpelier and Barre until in 1892 he became associated with Mr. Haley and formed the present firm, locating on South Main street, Barre. A few months later they moved to Montpelier, near Barre street, where they remained a little more than one year, when they occupied the Montpelier &

Wells River shop, where they stayed six years. They bought the Stafford & McGlyn plant on the site of their quarters, which was burned Jan. 17, 1901, and then built their present sheds the following March. It is 132x52 feet in dimensions, thoroughly equipped, and employs on an average twenty men. He is a member of the Elks and K. of C.

James S. Haley was born at Frankfort, Me., July 8, 1856. After leaving school he worked seven years for the Pierce-Rowe Quarry Company at that place. He then was employed three years on Hurricane Island, and in 1881 he went to Barre and learned the stone-cutter's trade with Wetmore & Morse, remaining with them until 1892, when he and Mr. Dillon formed a partnership.

Mr. Haley was mayor of Montpelier in 1907-8, having been alderman for four years previously. It was under his administration that the new City Hall was begun. He was vice-president of the Barre Granite Manufacturers' Association in 1910, and has acted as a delegate. He is Past Exalted Ruler and present District Deputy of the Elks, and was the first Grand Knight of the K. of C.

THE NATIONAL GRANITE COMPANY, Montpelier, whose plant is illustrated on another page, is made up of G. St. Onge and T. Bouchard, and they started in business seven years ago. They have had very good success and have built up an excellent business. Three years ago they built a new granite cutting shed 50x202 feet in dimensions which includes polishing mill, surface cutters, etc., and they employ 35 men and do all kinds of cemetery work. They hope for as good success in the future as they have had in the past and are looking for more business, which they are in a position to handle. They use the best dark Barre granite for polishing and light Barre for hammered and rockwork. Mr. St. Onge is a member of C. O. F.

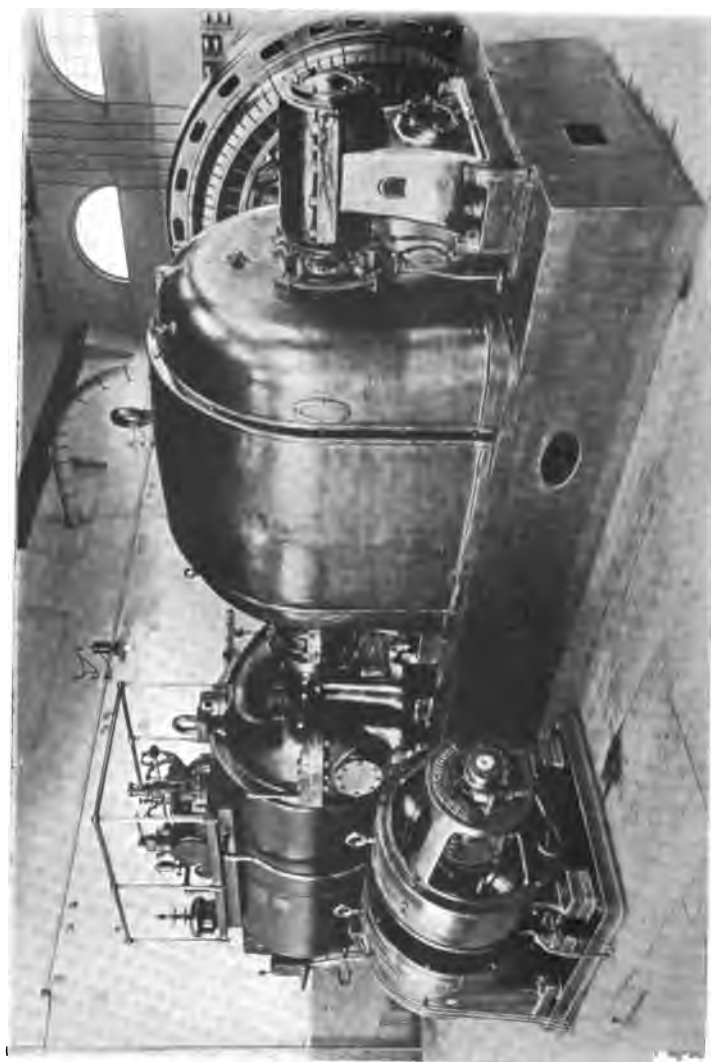
THE MILLS GRANITE COMPANY, of Montpelier, was established in 1901 by S. Hobert Mills and G. E. Mills, taking the firm name of Mills & Co., under which it has continued. About one year after starting business, G. E. Mills sold his interest to C. R. Scott. Mr. Scott continued in the firm for three years, then sold to Nat Whittier. Two years afterwards, S. H. Mills bought out Mr. Whittier and he became proprietor. He built the 140x30 ft. shed, equipping it with up to date machinery, with which he manufactures all styles of markers and monuments, making a specialty of the so-called Hickey markers. Mr. Mills runs two polishing machines



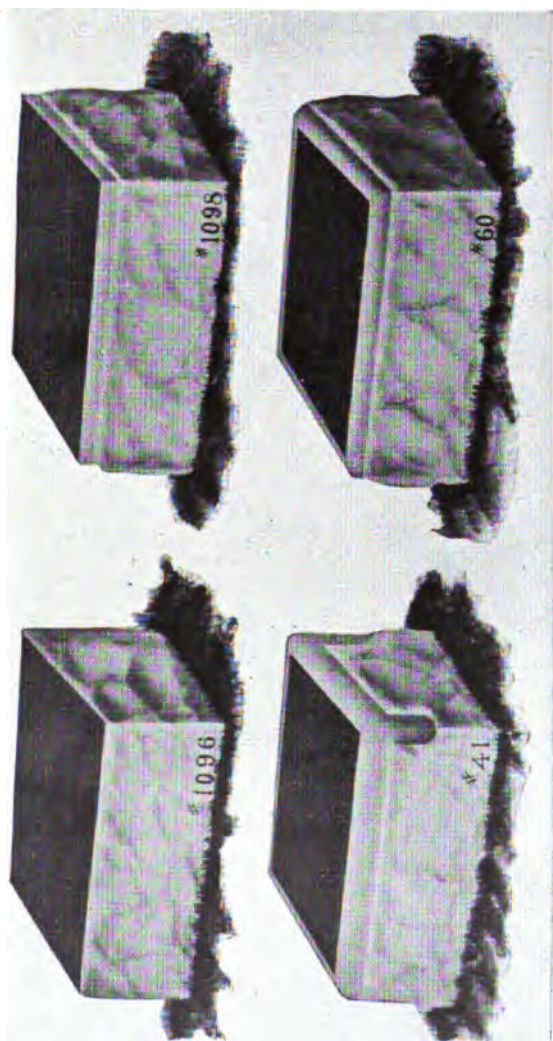
THE BEGINNING
1883 - 1886
3600 SQ. FT.
FLOOR SPACE

PRESENT FACTORY
1893 - 1910
15000 SQ. FT.
FLOOR SPACE

PLANT OF TROW & HOLDEN, BARRE, VT.



INTERIOR OF STEAM PLANT. CONSOLIDATED LIGHTING CO., MONTPELIER, VT.



CUT BY THE MILLS GRANITE COMPANY, MONTPELIER, VT.



PLANT OF LOWE-MERCER COMPANY, MONTPELIER, VT.



GEORGE BECKETT,
Firm of Grearson, Beckett & Co., Williamstown.



CUT BY GREARSON, BECKETT & CO., WILLIAMSTOWN.



CUT BY PASSERA BROTHERS, WILLIAMSTOWN.



CUT BY THE LUCIA GRANITE COMPANY, EAST HART, VT.

and a surfer. He has put in an exhaust fan to remove stone dust, and has just patented a polishing wheel and scroll buffer, which cuts across the stone and will do the work about one-third faster than can be done by the old system.

Mr. Mills was born in Vinal Haven, Me., February 20, 1860, and learned his trade with the Bodwell Granite Co. in that town. For several years he was engaged in fishing and then became associated with C. T. Ames, under the firm name of Ames & Mills, and they conducted a stone cutting shed at Westbrook, Me. Four years later they dissolved partnership, and Mr. Mills established the Sanford Granite Works at Springvale, Me., which he run for six years, at which time he sold the business and moved to Barre, and was employed by J. F. Huntton. Two years later he went to Montpelier and established his present business. He is a member of Star of Hope Lodge of Vinal Haven, Me., I. O. O. F. and Temple Lodge of Westbrook, Me.

LOWE, MERCER & COMPANY, Montpelier, was incorporated April 3, 1912, by Clarence E. Lowe, president, and David D. Mercer, secretary-treasurer, and they have in the plant formerly occupied by the late Harry Batoli many facilities for doing all kinds of cemetery work. The shed is 180x40 feet in dimensions, and is equipped with pneumatic tools, two polishing wheels and an air compressor of 405 feet capacity, the motive power being a 90 horse power electric motor, and they employ 35 men.

Mr. Lowe was born April 13, 1877, in Plainfield, Vt., and went to Montpelier with his parents when a child. He worked in a grocery store five years, and then was employed in the office of the Bowers' Granite Co. two years, when he went in the office of Jones Bros. Co. as chief clerk, a position he held 13 years. He then was engaged as office manager by the Leland Granite Co. until November 1, 1911, when he and Mr. Mercer formed a partnership and leased the Leland plant, which they ran until they moved to their present quarters. Mr. Lowe was treasurer of the Granite Quarry Association from 1907 to 1909, and was a member of the labor committee of the Barre Granite Manufacturers' Association. He and his brother, Charles F., own 95 acres of undeveloped quarry land directly back of the Boutwell-Milne & Varnum quarry.

Mr. Mercer was born at Dunfermline, Scotland, June 10, 1870, and when a child went to Montreal, P. Q., and later to the Thousand Islands. In 1886 he moved to Barre, and was employed by

Milne & Wyllie until 1892, when he went West and worked as journeyman five years. He returned to Barre and worked for the Leland Granite Co. until November 1, 1911. He is a member of Clan Gordon.

THE FIRM OF J. JURRAS & Co., Montpelier, is composed of John J. and Antonio Jurras, brothers, whose success since their short residence in this country is remarkable. They are natives of Dalmacia, Austria, the former being born March 1, 1875, and came to the United States in 1896, locating in New York City, where he stayed eight months. He then went to Canajoharie, N. Y., and worked in a lime stone quarry four years, after which he moved to East Montpelier, where he was employed two months. He then formed a partnership with his brother and engaged in the granite manufacturing business, and two years later moved to Montpelier, locating in the C. P. Gill shed. Their business steadily increased, and in 1906 they built their present up-to-date plant. The shed is one of the largest in the city, being 150x75 feet in dimensions.

They employ 65 hands, and send their work, which is polished and carved, to all parts of the country. Antonio was born January 29, 1881, and came to this country in 1900, joining his brother in East Montpelier, where he engaged in business with him a few months later.

WILLIAMSTOWN.

THE HISTORY OF THE FIRM OF GREARSON-BECKETT & Co., Williamstown, is virtually a history of the granite industry of that town. It was established in 1889 by George Beckett, James K. and George W. Lynde, Cyrus Lathrop and Wm. Z. Pratt, under the firm name of the Williamstown Granite Company, and they bought six acres of property at first and two years later two acres more. That same year they built a circular shed and began the manufacture of monuments. The quarry was sold to Jones Brothers and J. K. Pirie, but they continued the cutting plant. William N. Grearson was employed by them as foreman, but when the company was incorporated with a capital of \$30,000 as the Grearson-Beckett Company, he became its general manager, a position he held until his death, he being succeeded by Walter B. Kendrick. George Beckett was treasurer.

Charles Henry Beckett, son of George Beckett, has now succeeded to his father's interest in the business, but his time is devoted to his law practice in New York City.

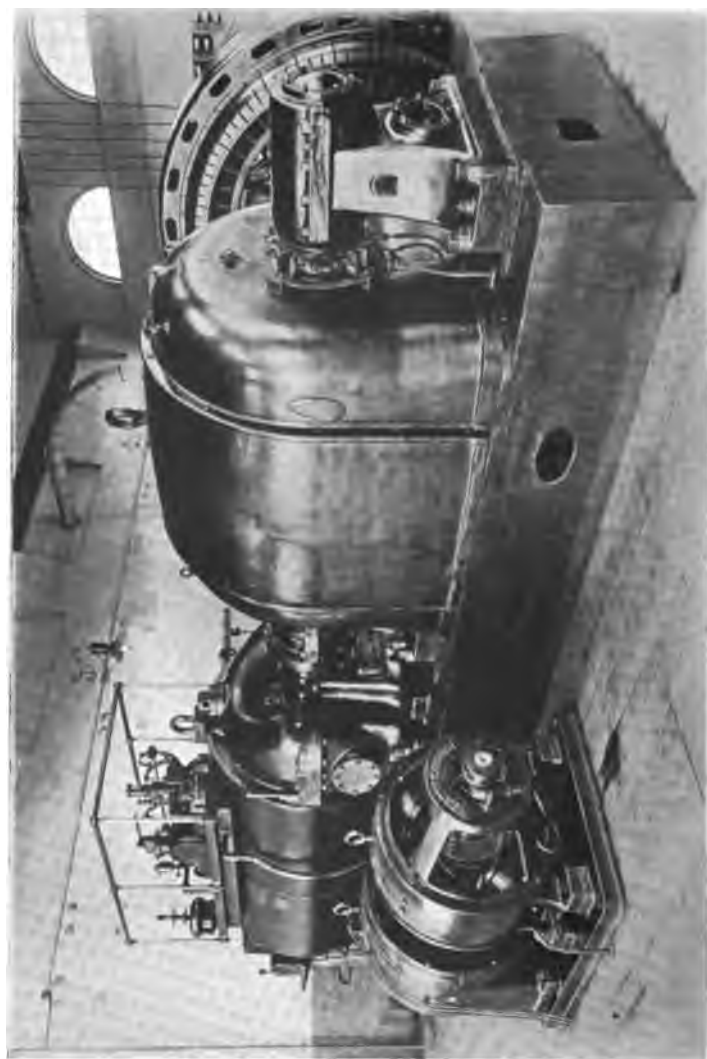
George Beckett is a native of Williamstown, Vt., where he was born May 14, 1833. He is a harnessmaker by trade, at which he amassed a comfortable fortune. He succeeded his father as Williamstown town clerk, he having held that position 35 years, or until his death in 1880. George Beckett held the office 27 years, and that of town treasurer 25 years. He was trustee of the Public Library 34 years, and treasurer and deacon of the Congregational Church 25 years. He was a member of the Legislature in 1900. His son was born in Williamstown, April 4, 1859, was graduated from Dartmouth College in 1881, and Columbia University Law School in 1883. He was appointed judge of Surrogate Court in New York City by General Hughes two years and had previously been a clerk of probate court five years.

W. B. Jones was born in Brynkin, Carnabonshire, Wales, England, February 5, 1877, and came to this country when nine years of age, learning his trade in Utica, N. Y., with Hughes & Evans. He then moved to Barre, and worked four years, and a like period in Montpelier, where he was employed in 1906 as manager for E. E. Craven one year, when he went to work for Grearson & Beckett as foreman, and on January 15, 1909, was appointed manager and treasurer, he holding a one-third interest in the company. He is a member of F. and A. M.

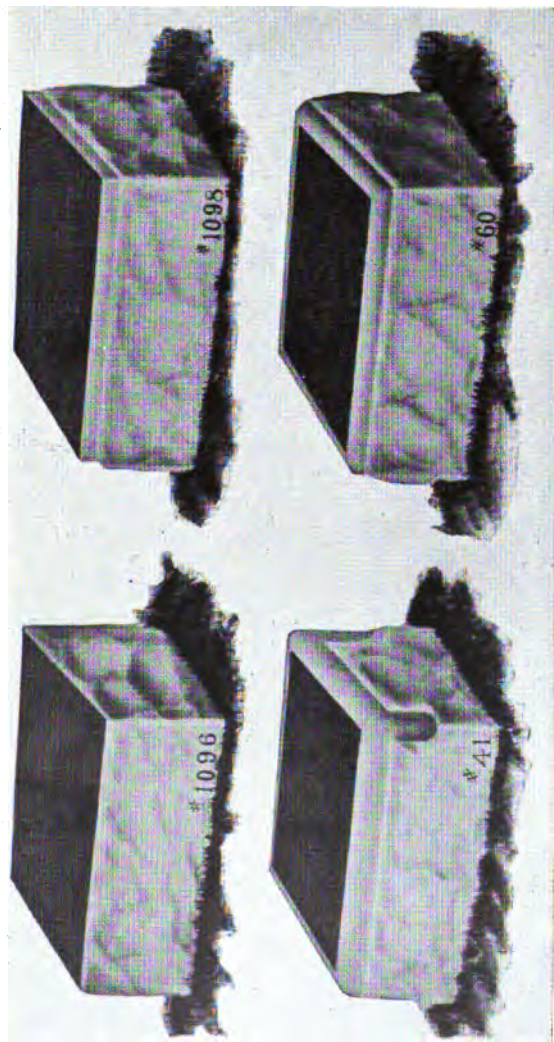
The up-to-date, steam-equipped plant is 254x68 feet in dimension, and fully equipped with traveling cranes, air compressors, pneumatic tools, etc., and they employ 40 hands. The monument is an example of the class of their work on another page.

PASSERA BROS., Williamstown, was established in 1905 by Charles and Frank Passera, they renting shed room from Grearson-Beckett Company, in the old plant vacated by them. In 1909 they purchased and moved to their present plant, which they have improved and enlarged, so that it is up to date in every particular. They employ 22 men, and their motive power is electricity which runs three motors, totaling a capacity of 73 horse power, and they do all kinds of monumental work, but make a specialty of high-grade polishing.

They are natives of Agno, Lugano, Switzerland, Charles being born Sept. 22, 1868; Frank, Sept. 2, 1874. Both learned their trade in Switzerland, the former having served five years apprenticeship, and then went to South America, where he remained five years, when he came to this country, locating in Barre. Six years later he



INTERIOR OF STEAM PLANT. CONSOLIDATED LIGHTING CO., MONTPELIER, VT.



CUT BY THE MILLS GRANITE COMPANY, MONTPÉLIER, VT.



PLANT OF LOWE-MERCER COMPANY, MONTPELIER, VT.



GEORGE BECKETT,
Firm of Gearson, Beckett & Co., Williamstown.



CUT BY GREARSON, BECKETT & CO., WILLIAMSTOWN.



CUT BY PASSERA BROTHERS, WILLIAMSTOWN.



CHAS. W. LEONARD,
President of Woodbury Granite Company.

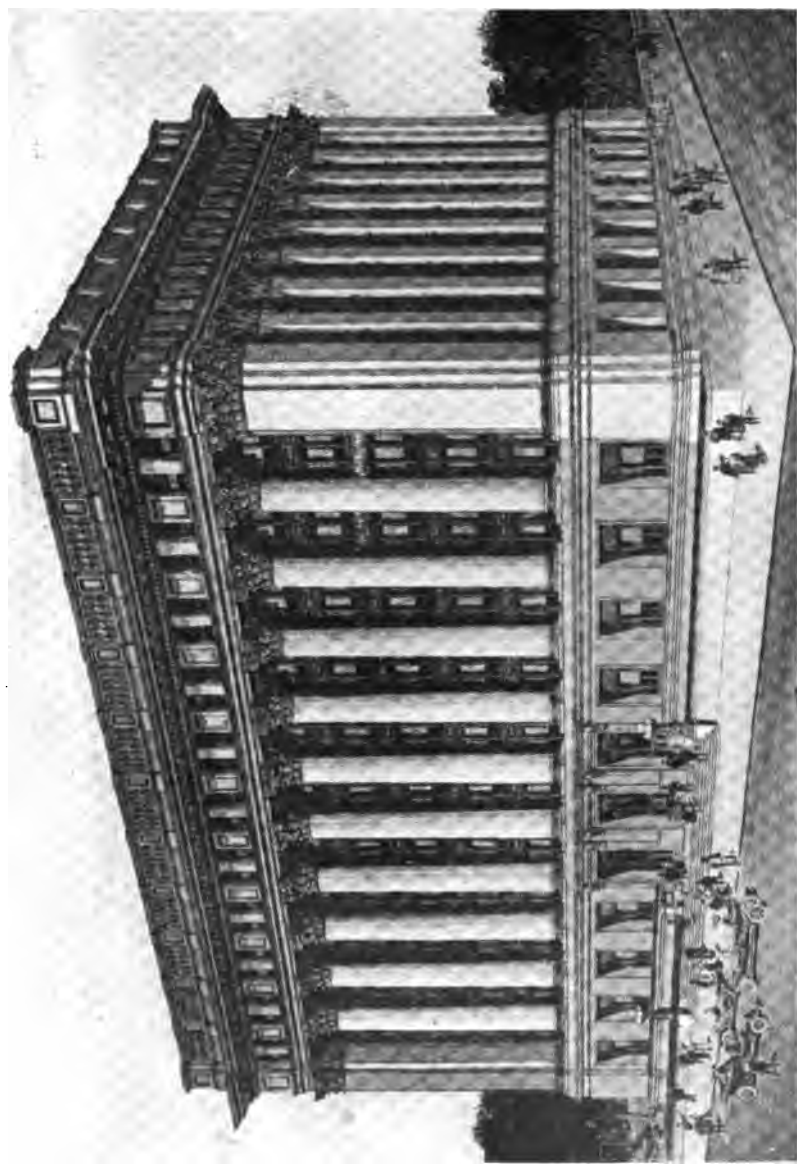


GEORGE H. BICKFORD,
General Manager and Treasurer of Woodbury Granite Company.



WISCONSIN CAPITOL, MADISON, WIS.

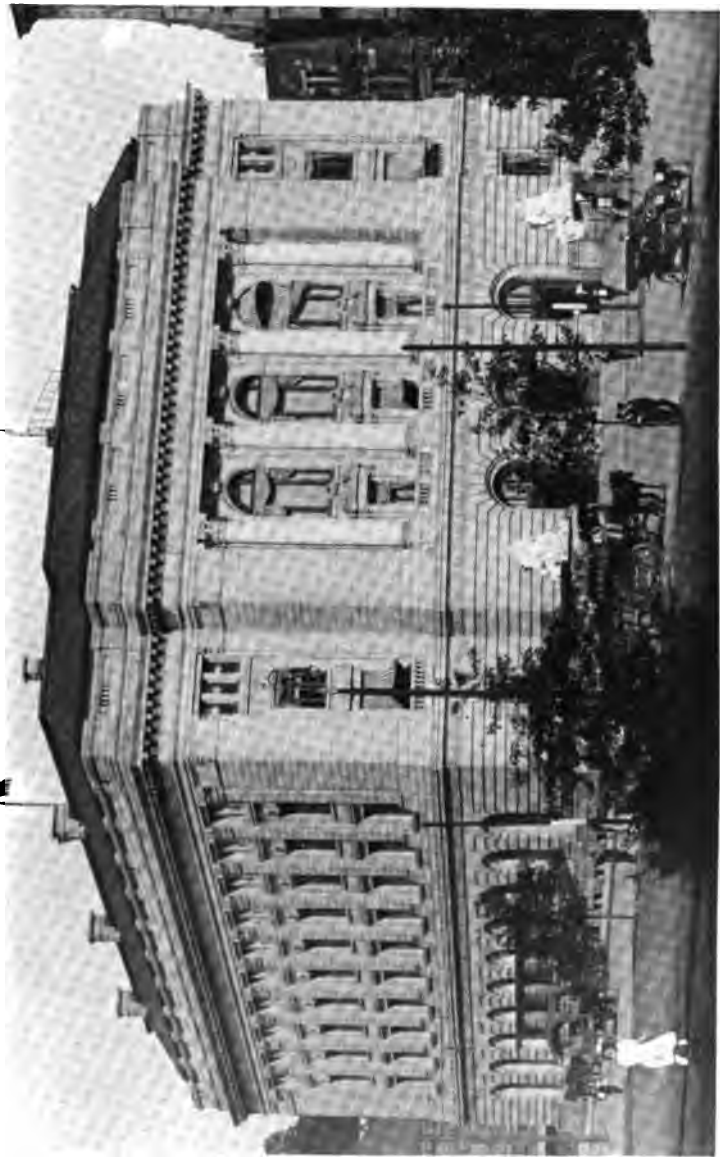
Bethel White Granite.



NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY BUILDING, MILWAUKEE, WIS.
Vermont White Granite.



CHICAGO CITY HALL AND COOK'S COUNTY COURT HOUSE, CHICAGO, ILL.
Woodbury Gray Granite.



UNITED STATES POST OFFICE AND CUSTOM HOUSE, PROVIDENCE, R. I.
Woodbury Gray Granite.



PENNSYLVANIA CAPITOL, HARRISBURG, PA.
Woodbury Gray Granite.

pany's main storehouse for supplies, which is larger and more crowded than the ordinary country store. In the main cutting shed is found a greater assortment of up-to-date machinery than can be found in any other granite plant in the world. Here is one of the two big McDonald surfacing machines, costing \$8,000 each, of which the company has four out of a total of less than a dozen in existence. Here, too, are polishing lathes, gang saws, carborundum saws, and the largest stone turning lathes in the world, among them one just installed capable of taking in a stone 36 ft. long and 8 ft. 6 in. in diameter.

That the company is on the alert for the utmost speed and efficiency of production is nowhere more apparent than under its immense runway, 870 ft. long and 75 ft. wide. This runway is equipped with two electric-driven steel cranes, each good for thirty tons capacity. Under it are eighteen tracks, on each of which can be placed two or more cars simultaneously. Here one can feel the very heart throb of the whole plant,—as it is here that everything centers. Under this runway must come nearly all raw material used in the plant, and from it must be loaded nearly all of its finished product. This extraordinary provision for unlimited storage and rapid shipment of its product is without a parallel in the stone trade, and it has had much to do with the rapid delivery records of the company of which the management is justly proud.

Extending from this runway are soon to be built three other immense sheds, all under the same roof and each equipped with steel cranes, which will practically double the possible output of the plant.

That the company is also alert to the necessity of finding an outlet for its waste materials is proven by its extensive equipment for making paving blocks on one side of the plant, where thirty to fifty paving cutters are provided for under twin cableways, each of five tons capacity, and by its extensive crushing plant on the other side of the works with a capacity of two hundred tons a day.

But immense cutting plants and extensive equipment, however perfect they may be, are of little value unless backed up by equally extensive quarries of a quality and grade of granite that will meet the demands of the trade. A visit to the quarries at Woodbury, eight miles from Hardwick, is sufficient to convince one that here are located some of the finest granite quarries in the world, and that in the extent of the deposits and the quality of the gray granite found

in the oldest of its three quarries located in Woodbury, the company has found the strongest justification for the extensive improvements at Hardwick and for the faith it has always had in the future of the business.

From this quarry is taken its regular gray granite, known to the trade as "Woodbury Gray," and it is to the credit of the company that in the ten years it has been engaged in the production of this granite for building purposes it has brought it to the point where it has come to be recognized as one of the three or four granites of this country accepted as standards. There are very few of the largest building contracts let that do not have to reckon with this granite in active competition.

Here, too, is produced the grade of the gray granite, known to the monumental trade as the "Bashaw Granite," and made famous as "the trade marked stone," the purpose of the trade mark being to concentrate upon this stone the cumulative effects of the extensive advertising campaign inaugurated by the company. The results were so apparent that it has since trademarked its other granites for monumental purposes—the "Imperial Blue," "Peerless White" (or Bethel Granite), and the "Vermont White"—each one of which has some strong and distinctive characteristic of color or grain.

At the Gray Quarry of the company are located ten immense derricks, several cableways, a central power plant with its big air compressor, blacksmith shops, engine houses, office, etc.,—all on the largest scale—for it is here that many a record has been broken in the time required for the production of big building contracts or in the quarrying of some single stone of unusual size. From these quarries and from the cutting plants at Hardwick have been produced such monumental buildings as the Chicago City Hall, Cook County Court House, Chicago; Pennsylvania State Capitol, the Providence, Minneapolis and Grand Rapids Post Offices, and it is the proud distinction of this quarry to have produced granite for four state capitols, those of Pennsylvania, Kentucky, Iowa and Idaho.

During the single year of 1910 it produced the granite for twenty-four post offices, and for 1911, twenty-six post offices,—which fact alone would seem to be ample proof that the "Woodbury Gray Granite" has come to be recognized as a standard stone and to bear the stamp of Government approval.

A description of the quarry is difficult and in fact almost im-

possible, as it changes so constantly,—but at this quarry could be seen in one of its openings a single sheet of flawless stone five hundred feet long, twenty to thirty feet deep, and twenty to fifty feet in width. This alone of all the company's quarries and cutting plants is operated by steam.

About a mile from the Gray Quarry is located the ledge from which is being quarried the "Vermont White" granite. This is a new quarry opened in 1912 and from it is being produced a remarkably white granite—the whitest, perhaps, of all the granites, with the single exception of the Bethel granite produced by this same company at Bethel, Vermont. The ledge is of unusual promise, both as to quality of stock and the extent of the ledge, and already contracts have been taken in this granite for some very large and monumental buildings. At this quarry are already in operation eight big derricks run by mammoth electric hoists, and there is every indication that it will soon develop into one of the largest quarry properties in the country.

About a third of a mile farther on is located the dark gray ledge from which is taken a beautiful monumental stone known as the "Imperial Blue." Like the "Vermont White," this is a newly developed ledge of remarkable promise.

Both quarries are located on spurs of the Hardwick & Woodbury Railroad, controlled by the company. Like the "White," the Blue Quarry is operated with electric hoists. An air compressor plant, motor driven, supplies the air required for both quarries. Here, too, is located an auxiliary steam plant with steam compressor for emergencies. The "Imperial Blue" granite promises to take high rank among the darker granites used for polished monumental work, being even darker in shade and finer in texture than the best dark Barre.

In 1903, the company purchased quarry property at Bethel, Vermont, sixty miles south of Hardwick, and began there the erection of a cutting plant which has grown to be second only in size to that at Hardwick. The same business insight and aggressive policy which has made Hardwick the leading building granite centre of the country has made itself felt at Bethel in the production of the unique white granite quarried there and it is fast making the name "Bethel" a household word in the granite industry because of the superior excellence of the stone; for Bethel granite has the proud distinction of being the whitest known granite as well as the hardest, and hence most expensive, of any of the granites used for commercial purposes.

A visit to the Bethel quarries reveals a beautiful formation of pure white granite of a soft, mellow shade that easily puts it into a class by itself. The sheets run in thickness from a few inches to eight or ten feet. The quarry is equipped with several large derricks, electric hoists, electric-driven air compressors, and a thoroughly modern and up-to-date equipment.

This granite is shipped in the rough by rail to the cutting plant, located in Bethel village. Here can be seen what may be considered the "last word" in the equipment of a granite plant. Everything is electric driven, the power being furnished by the company's own power plants, two of them, each good for 600 H. P. From these same power plants is also developed the power required at night for the lighting of four towns and villages, Bethel, Randolph, Randolph Center and Gaysville. These water power plants, together with an auxiliary steam plant, with an engine capacity of 1,000 H. P. and a boiler and electrical capacity of 500 H. P., are owned by the Gaysville Electric Light and Power Company, a subsidiary company owned by the Woodbury Granite Company.

At the Bethel plant are four big cutting sheds (three of them under a single roof), a big steel runway, two hundred feet long, seventy-five feet wide, for storage of granite and for shipping, and another runway two hundred and fifty feet long and sixty feet wide. On the runway and in the sheds are in operation five big steel cranes, electric-driven, ranging in capacity from ten to thirty tons. Here are big compressors, two McDonald surfacing machines, large lathes, second only in size to those at Hardwick, machine shops, and blacksmith shops, built of concrete blocks, three big Pirie sharpening machines (a recent invention for sharpening cutters' tools), and many other devices for reducing the cost of production and for increasing the output. For here, as at Hardwick and Woodbury, is found abundant proof of the same efficient business organization, striving always to accomplish its purpose of securing economy of production, speed of output and a product satisfactory to its customers.

If anything more were needed to prove that it has accomplished its purpose, we need only mention some of the monumental buildings it is now actually at work upon, making a grand total of fully \$4,000,000 of unfinished work:—The Wisconsin State Capitol, Madison, Wis.; Pro-Cathedral, Minneapolis, Minn.; Turk's Head Office Building, Providence, R. I.; Post Office, Washington, D. C.;

Miners' Bank Building, Wilkesbarre, Pa., and Hartford City Hall, Hartford, Conn., and the twenty-nine story Western Union Telegraph Building to be erected at the corner of Broadway and Dey streets, New York City, at a cost of over \$1,000,000; all the above of Bethel granite.

Minneapolis Post Office, Minneapolis, Minn.; Public Monuments at Bloomington, Ill., Princeton, Ill., and Madison, Wis.; and a portion of Bankers' Trust Company Building, in New York city—all in the Woodbury Gray or Bashaw granite.

Home Office Building for North Western Life Insurance Company, Milwaukee, Wis.; Museum of Fine Arts, Minneapolis, Minn., and Soldiers' and Sailors' Monument, Wichita, Kan.—in the "Vermont White" granite.

The company is fortunate in the quality and character of its management. Behind its growth and achievement lies a keen, far-sighted business policy. It is no small thing to have reared a business of over one and a half million dollars annually in a village that fifteen years ago was a quiet, rural community.

The astute business men who have built up this immense business are the late John S. Holden, of Bennington, Vt.; Charles W. Leonard, of Boston, now President of the Company, and Geo. H. Bickford, of Hardwick, the Treasurer and General Manager from the beginning, and the only one of the company actively engaged in the business.

With a clearness of vision that seems almost prophetic and with a steadfastness of purpose that has few, if any, equals in the trade, much of the credit belongs to these men for having placed the granite business, particularly in the building line, on a firmer and surer basis, and for having given it a place of honor and dignity in the commercial world such as it had never enjoyed before.

Such men are true commercial pioneers and such a company is an uplifting force to any industry. The end and aim of the Woodbury Granite Company is to broaden the demand for granite and to convince architects and builders of the fact that granite is no longer a commodity that can only be had slowly and at irregular intervals.

The Woodbury Granite Company is organized and equipped to give its customers what they want when they want it. Its granites are high grade, its organization is efficient, and its complete and well-maintained equipment guarantee rapid delivery and high class workmanship.

WILLIAM BARCLAY DONALD, Hardwick, is a native of Kindcondenshire, Scotland, where he was born May 15, 1862. He learned his trade with Alexander Milne of the Imperial Granite Works, and in 1882 went to Quincy, Mass., where he was employed by Henry Hardwick. He then worked for the Bay View Granite Co. of Cape Ann, and the Hallowell Granite Co., when he returned to Quincy and was engaged by Milne & Chalmers, the Merrymount Granite Co., and later by Joss Bros. In 1894 he took charge of the plant of the Lyons Granite Co., where he remained eight years, when he was engaged as foreman for the Woodbury Granite Co., a position he held until 1904, when he started in business for himself in a small shed near the depot. In 1909 he built his present plant, the shed being 125x36 feet in dimensions, and is fully equipped with modern machinery run by electric power. He does all kinds of cemetery work, including mausoleums, statues and carving, which is sent to all parts of the country. Mr. Donald is an active worker for temperance, is a member of Clan McGregor, No. 5, Quincy, Mass., and a Knight Templar; a member of the executive committee of the Hardwick Granite Manufacturers' Association. The soldiers' monument at Vicksburg, La., the soldiers' monument at Wichita, Kans., and the soldiers and sailors' monument at Princeton, Ill., are specimens of his work cut for the Woodbury Granite Co., they being the general contractors.

GEORGE W. TROW is proprietor of the Crystal Brook Granite Company, Hardwick, a prosperous establishment, manufacturing all kinds of monumental work which is sent all over the country. His plant is 32x96 feet in dimensions, and gives employment to 20 men. Mr. Trow is a native of Montpelier, Vt., where he was born August 19, 1857. He served a five years' apprenticeship as stone cutter with H. R. Mock and J. E. Sullivan of Hardwick, and later worked for E. M. Brush seven years. He then bought out Mr. Brush, who was located near the depot, and he ran the business alone for five years, when his father was admitted a partner, and they built the plant now occupied by Howard & Martin. Five years later his father retired from the firm and the plant was sold to its present occupants. Mr. Trow then moved to the Daniels' shed near the depot, where he remained three years, then moving to the plant formerly occupied by J. E. Sullivan, where he is now located. He is a member of I. O. F. In 1912 A. L. Wells was admitted a member of the firm.

THE STEWART GRANITE WORKS, Hardwick, is composed of Charles C. Stewart and his son, John R. Mr. Stewart, Sr., is a native of Dover, N. H., where he was born July 6, 1850. After a few years in railroad work he was apprenticed to Robert Ladd, St. Johnsbury, Vt., serving two years as stone cutter. He then went to Hardwick and was employed by George Delano, and later by Sumner Kimball in Montpelier. He then went to Ryegate, Vt., and worked 18 years for the Blue Mountain Granite Company, when he returned to Hardwick, and soon after started in business for himself, and in 1898 his son became associated with him. Their plant was originally located near the depot, but in 1911 they moved to their present quarters, where they employ nine men and do all kinds of monumental work. Mr. Stewart was president of the Hardwick Granite Manufacturers' Association in 1910 and 1911; was a delegate in 1911, and is an ex-member of the Building Committee. He is a member of Caspian Lake Lodge, F. & A. M., and is a deacon of Congregational Church. John R. Stewart was born in St. Johnsbury, Vt., October 7, 1878. He worked in the Hardwick Gazette three years, and then joined his father in business, having learned stonecutting and carving. He has been secretary of the Hardwick Granite Manufacturers' Association, 1910-11-12; was master of Caspian Lake Lodge, F. & A. M., in 1906, and is on the board of village auditors.

BERNARD F. HOWARD, WILLIAM H. MARTIN AND MICHAEL J. COUHIG comprise the firm of Howard & Martin, Hardwick. Mr. Howard was born in Danville, Vt., June 1, 1874, and began his apprenticeship in 1895 with Francis Arnold, and later with Drew Daniels of Hardwick and Barre. He also was employed by F. A. Emerson and J. E. Sullivan, when he went in business with Mr. Martin, October, 1908. He is president of the Hardwick Granite Manufacturers' Association, being elected in 1911; is also member of K. of P. During the war with Spain he served in the First Vermont Regiment.

Mr. Martin is a native of Lee, Mass., where he was born July 1, 1874. He was graduated from the Lee High School and the Albany Business College, after which he was employed as stenographer in New York City two years. He then went to Hardwick as bookkeeper for R. F. Carter of the Standard Granite Co., after which he acted as travelling salesman two years. He then was employed in the office of J. E. Sullivan five years, when he became

associated in business with Mr. Howard. He is a member of the K. of C.

Mr. Couhig was born at Chatham, N. B., October 25, 1867, and when 18 years of age learned the granite cutters' trade with Edward Barry, working on bridge work for the Canadian Pacific Railroad. After two years he was employed in similar work for the Aroostook Railroad, and later for the Stonington Railroad. He then went to Hardwick and worked for T. R. Fletcher and the Woodbury Granite Co. until 1911, when he became a member of the firm. He is a member of K. of C.

Their plant is a model of its kind, being fully equipped with all the latest tools and appliances, including polishing wheels with direct power connections. It was built in 1908, and is 160x32 feet in dimensions. They employ 25 men and do all kinds of cemetery work which is sent all over the country.

FRANK H. DUPAW is sole proprietor of the business carried on under the firm name of the Hardwick Polishing Co., Hardwick. He was born in Burlington, Vt., October 25, 1868, and learned the trade of polisher with H. R. Mack, after which he worked as a journeyman eight years. He then formed a partnership with C. L. Vean, Clifton O'Clair and Henry Lavella, under the firm name of the Hardwick Polishing Co., and occupied a small shed. Two years afterwards Messrs. Vean and Lavella retired, and he and Mr. O'Clair became associated with R. C. and G. B. Wallace, and organized the Union Granite Co., carrying on a manufacturing business, but after nine years Mr. Dupaw bought his partners' interests in the polishing department and has been alone ever since. He moved to his present quarters in 1911, the shed being 60 x 40 feet in dimensions, in which he has installed four large wheels, two air compressors, and a high derrick to operate, which requires 40 horse-power. He does polishing for the local trade, for which he gives employment to six men. Mr. Dupaw is a member of the Woodmen of America and the Grange.

JOHN WALSH is sole proprietor of the American Granite Company, Hardwick, which was organized by Mr. Walsh, James McCormack and William Good. About one year later he bought Mr. Good's interest and two years afterwards became the proprietor, after which he built his present modern plant. The shed is 110 x 45 feet in dimensions, in which is installed one 30 and



CUT BY W. BARCLAY DONALD, HARDWICK. VT.



PLANT OF THE HARDWICK POLISHING COMPANY, HARDWICK, VT.



CUT BY THE AMERICAN GRANITE COMPANY, HARDWICK, VT.



PLANT OF HOWARD & MARTIN, HARDWICK, VT.



CUT BY CRYSTAL BROOK GRANITE COMPANY, HARDWICK, VT.



CHARLES K. STEWART



JOHN R. STEWART

Firm of The Stewart Granite Works, Hardwick, Vt.



CUT BY STEWART & DOUGLAS, HARDWICK, VT.



CUT BY JAMES HAY, HARDWICK, VT.

one 20 horse-power electric motor, an air compressor of 320 feet capacity, a ten-ton derrick, two job cranes, one polishing wheel, and two surface cutters, and he gives employment to 45 men. He makes a specialty of carving and lettering, but does all kinds of high-class monumental work, which goes all over the country.

Mr. Walsh was born in Methuen, Mass., September 21, 1873. He worked in a carriage factory three years, but left the business and learned stonecutting with Lahey & O'Donnell, of Lawrence, Mass., for whom he worked three years. He then was employed by F. G. Cummings, of Haverhill, Mass., a short time, when he moved to Hardwick and worked for Marriam & McFarland a few months, when he engaged in business. Mr. Walsh is a clarinet player of marked ability, having performed as soloist at many of the fashionable summer resorts.

JOHN HAY, Hardwick, is a native of Peterhead, Scotland, where he was born July 27, 1872. He was apprenticed to the Great North of Scotland Granite Co., as a polisher two years, and four years as a stonecutter, after which he worked four years as a journeyman. He went to South Africa, where he worked seven years, after which he returned to Scotland, but shortly after came to this country and located at Northfield, Vt., where he was employed by the Ellis Granite Co. He then moved to Hardwick and worked for the Woodbury Granite Co. about two years, when he became associated with Peter Blackhall, and formed the firm of Blackhall & Hay. Mr. Blackhall died June 14, 1911, since which time Mr. Hay has been alone in the business. He has a well-equipped plant and gives employment to ten men; his work includes all kinds of fine monuments. He is a member of St. James Lodge, F. & A. M., and the W. of A.

ANDREW STEWART, proprietor of the firm of Stewart & Douglas, Hardwick, is a native of Aberdeen, Scotland. After serving an apprenticeship of seven years with Cutler, King & Anderson, he worked on stone for a postoffice, when in 1905 he came to the United States and located at Beebe Plains, P. Q., and was employed by the Stanstead Granite Co. one year. He then moved to Hardwick and worked for the Woodbury Granite Co. until August, 1910, when he became associated in business with D. Douglas under the present firm name. A few months later, Mr. Stewart bought his partner's interest, and in 1912 moved to his present plant. He has facilities for doing all kinds of monumental work, a sample of which is illustrated on another page. He is a member of Clan Douglas and the Masons.

MORRISVILLE.

FRED W. MOULD, of Morrisville, Vt., is a native of Keeseville, N. Y., where he was born August 17, 1868. He was graduated from the Keeseville Union Free School in 1887 and the University of Vermont in 1891, after which he was employed as clerk six years by W. H. PERRY, Concord, N. H. He then worked for Drew Daniels at Morrisville and Waterbury, Vt., four years, after which he returned to Morrisville and formed a partnership with C. C. Boynton under the firm name of Mould & Boynton. One year later Mr. Boynton sold his interest to Percy R. Davis and the firm name was changed to Mould & Davis, and this continued until October, 1908, when Mr. Mould bought out his partner and has conducted his business alone since that time. The plant originally occupied was built by individual subscription for the Brechin Granite Company, and they were succeeded by Drew Daniels, who later moved to Waterbury, Vt., and was succeeded in Morrisville by Arnold Granite Company. After them came Pike & Boynton, who moved the shed to its present location. Pike soon dropped out and Boynton then ran the business alone for a short time until he formed the partnership with Mould. The shed is 33x100 feet in dimensions and is well equipped with modern appliances for doing first-class work. Mr. Mould employs about 20 men and sends his products all over the country. He is a member of the Phi Delta Theta Fraternity, of Mount Vernon Lodge, F. and A. M., and is treasurer of the Morrisville Congregational Society.

THE UNION GRANITE COMPANY, Morrisville, is composed of Robert C. and George B. Wallace. Both men are natives of Leeds, P. Q., Robert being born February 20, 1870, and George, March 20, 1878. Robert worked several years in the E. T. Fairbanks scale factory, after which he moved to Hardwick and learned stone cutting with J. F. Sullivan. He was employed by the Hardwick Granite Company four years, and then formed a partnership with his brother and located in a shed near the depot. Later they moved to the Stewart shed, which they sold to the Hardwick Polishing Company, and built the modern plant where they are now located. It is 250x50 feet in dimensions, and is thoroughly equipped for doing all kinds of monumental work, and gives employment to 45 men. He is a member of Caspian Lake Lodge, F. and A. M., and Hardwick Lodge, I. O. O. F. George learned his trade with George D. Bailey

of Hardwick, where he was employed three years, after which he became associated in business with his brother. He is a member of Hardwick Lodge, I. O. O. F.

PLAINFIELD.

THE FIRM OF F. BONAZZI & SON, Plainfield, Vermont, consists of F. Bonazzi and his son, L. Antonio. Both are natives of Baveno, Italy, the father being born January 1, 1867, and his son, August 10, 1890. The former learned his trade in Italy, and after five years he came to this country, and located in Bayview, Mass., where he was engaged in building work two years. He then moved to Concord, N. H., and later to Hallowell, Me., and then to Barre. Later he went to Italy and brought his family to this country in 1902. He moved to Montpelier and became a member of the firm of Peduzzi & Bonazzi, later changing to Bonazzi & Bonazzi. In 1908 he sold his interest in that firm and located in East Montpelier, where the present firm was established, doing a wholesale and retail business. Eighteen months later they moved to Plainfield, where they have a well-equipped plant, employing 16 men and utilize a 30 horse-power electric motor. Antonio learned his trade with his father, after which he became a member of the firm, having got his education in the public schools of Montpelier, also taking a course with the I. C. S. of Scranton, Pa. He is a member of the Modern Woodman of America.

WEST BERLIN.

ONE OF THE WELL KNOWN GRANITE manufacturing firms in the Barre district is Davis Bros. of West Berlin, Vt., composed of Robert A., Fred J. and Daniel S., who are natives of St. George, N. B., where they served their apprenticeship as stonecutters.

Robert and Fred went to Barre in 1884, and Daniel a few years later. In 1886, at Barre, a partnership was formed between M. L. and L. T. Cross, and R. A. and F. J. Davis, known as Cross & Co., which firm continued about twelve months, when the Messrs. Davis withdrew; R. A. went to college, and F. J. became associated with Henry Phillips, under the firm name of Davis & Phillips, locating at Northfield, Vt. This partnership continued for four years, when Mr. Phillips withdrew and Fred consolidated with Robert and Daniel, who for two years had been in business in Northfield and were known as Davis Bros.

The Davis Bros. soon installed electrical machinery, it being the first granite plant in Northfield to utilize this power. In 1895 their business had increased to such an extent that a much larger plant was required, and they purchased the plant of the Berlin Granite Co., located at West Berlin, Vt., six miles south of Montpelier on the main line of the Central Vermont Railroad, where they obtained power from one water wheel of 80 horse-power. Two years later they installed an additional water wheel of 100 horse-power, and increased their cutting shed to 300x35 feet in dimensions, which gave them still better shed facilities with more power.

In the fall of 1909 they again increased their power plant by raising their dam three feet six inches, thus procuring a total of 256 horse-power from the water fall. They also installed an auxiliary steam plant, developing an additional 285 horse-power. This power is electrically distributed throughout the main shed and to a smaller shed nearly 100x50 feet in dimensions, which they built in 1905. Sixty hands are employed in the main plant, and about 25 in the smaller shed.

This firm has produced many large and notable memorials, a few prominent ones being the Henry Wiesen mausoleum in Woodlawn Cemetery, New York City; the Bachman monument at Newburyport, Mass.; soldiers' monuments at Mechanicsberg, O., and Vineland, N. J.; the General Butterfield monument at Frederickburg, Va., and the monument in Lutheran Cemetery, New York City, to the memory of the unidentified dead of the General Slocum disaster.

Fred devotes his time to the office, Robert to the motive power and Daniel represents his firm on the road a portion of the year, the balance of the time superintending the cutting works. Fred and Daniel are members of Dewitt Clinton Lodge, No. 15, F. and A. M. of Northfield, and King Solomon Chapter, R. A. M., at Montpelier.

Although no one of the firm has taken very active part in politics, they have always been interested in the prosperity of the community, often lending valuable help to the progress of the town of Berlin, and also to the town of Northfield, adjoining Berlin, where the members of the firm reside. Fred has at various times served on the board of trustees of the latter place, and from 1904 to 1908 was chairman of this board. At the present time this company is making further plans to enlarge their business by developing another large water power a short distance from their present



LEVI T. CROSS,
President Cross Bros. Co., Northfield, Vt.



GEORGE A. CROSS,
Treasurer.



JOHN A. CROSS,
Secretary.

Firm of Cross Bros.' Co., Northfield, Vt.



JAMES F. CROSS,
Superintendent.



M. W. CROSS,

Firm of Cross Bros.' Co., Northfield, Vt.



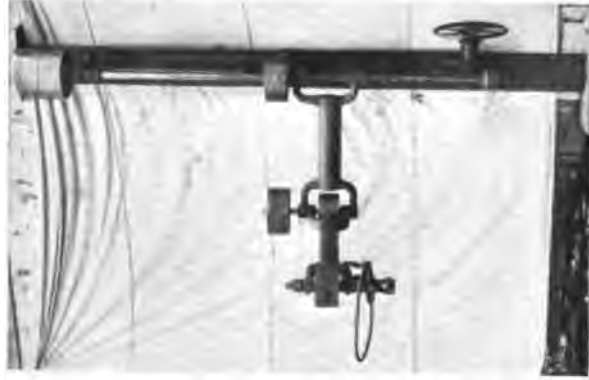
CUT BY THE BRUSA GRANITE CO., NORTHFIELD, VT.



PLANT OF PHILLIPS & SLACK, NORTHFIELD, VT.



No. 1.—GRANITE CITY POLISHING
MACHINE.



No. 2.—LIGHT POLISHING
MACHINE.



No. 3.—GRINDSTONE FRAME FOR
GRINDING COLUMN CUTTING DISCS.

Patented and Manufactured by Willis A. Lane, Barre, Vt.



HARLEY D. STEVENS,
Barre, Vt.



WILLIAM C. RUST,



ALFRED BREW,

Firm of Rust & Brew, Barre, Vt.

works, and erecting buildings to be either occupied by themselves or rented for manufacturing purposes.

THE FIRM OF PROVOST & SON is composed of Stanley Provost and his son, Arthur James, who was admitted to the firm in 1910. Mr. Provost is a native of Point Levi, P. Q., where he was born July 18, 1866. He went to Lake Huron, Mich., when young and worked as lumberman five years, then moved to New York, where he remained two years. Then he moved to St. Johnsbury and learned the stonecutting trade from Kerrick Brothers. He was there about four years when he was employed by Fraser & Co. at Beebe Plains, Vt., then going to Northfield, with Davis Brothers, where he was employed five years. He then became associated with William C. Scott under the firm name of Scott & Provost, and conducted business in Northfield Falls about two years, when he sold his interest and started business alone in the same town. Four years later he moved to West Berlin, and taking Mr. Jos. Bussiere, of the same town, as partner, did business under the firm name of Provost & Bussiere. Two years later he bought Mr. Bussiere's interest and took his son as partner, and purchased their present plant. They give employment to 22 men. He is a member of the M. W. A. and C. O. F.

His son Arthur was born in St. Johnsbury, March 7, 1890, and after leaving school learned the trade with his father. He also is a member of the M. W. A. and C. O. F.

NORTHFIELD.

FIVE BROTHERS compose the firm of the Cross Brothers' Company, Incorporated, Northfield, Vt. They are Levi T., Malbrough W., George A., John A., and James F. The business was established in 1888 at Barre, where manufacturing was carried on about eight years, when they moved to Northfield, and in 1901 built their plant, which besides a cutting shed of 325x75 feet in dimensions, they have several other buildings, and utilize 150 horse power steam engine and 125 horse power water wheel. One hundred hands are employed, and their plant is equipped with nine polishing wheels, ten surface cutters, two gang saws, two traveling cranes of 20 tons capacity and one boom derrick of 35 tons capacity. The company was incorporated September, 1910, with Levi as president; M. W., vice-president; George, treasurer; John, secretary, and James, superintendent. They are natives of New Ireland, P. Q. Levi was born

August, 1869; Malbrough, October 6, 1863; George, June 4, 1865; John, December 3, 1867, and James, April 16, 1871. Each is a practical stone cutter with the exception of John.

Levi and Malbrough became associated in business with Robert and Daniel Davis and conducted business under the firm name of Cross & Co. George was in business in Concord, N. H., with A. C. Burse, under the firm name of Burse & Cross, when he bought out the Davis Brothers and joined the Cross Brothers. John entered the firm three years later and James became a member when the company was incorporated. In 1911 they patented an adjustable banker which can be adjusted to any angle in any direction. They have built an electric polishing machine, and they operate a machine shop and garage in addition to the manufacture of granite. Each brother is a member of F. and A. M.

THE BRUSA GRANITE COMPANY, Northfield, Vt., is composed of John Brusa, Harry L. Brusa, Peter Brusa, and Andrew Bernasconi, all natives of Varese, Lombardy, Italy. John was born in 1866, Peter in 1872, Harry in 1890, and Andrew Bernasconi in 1869. They are practical carvers and statue cutters, having learned their profession in Italy. They established their business in 1892, and operate a modern plant 400x50 feet in dimension, fully equipped with all the modern machinery, where they give employment to about 80 men.

They make a specialty of statuary and fine carving, one of their most noteworthy contracts being the six groups of statues 18 feet high, each in one solid piece for the Union Station at Washington, D. C. They have always on hand contracts for the carving of some of the best work in the United States.

THE FIRM OF PHILLIPS & SLACK of Northfield, Vt., is composed of F. A. Phillips and H. H. Slack. Mr. Phillips is a native of St. George, N. B., where he was born August 27, 1872, and in 1892 he began his apprenticeship with Davis & Phillips, Northfield, which firm had been established in 1889 by Fred J. Davis and Henry D. Phillips. In 1894 this firm dissolved partnership, and F. A. Phillips and H. D. Phillips started business as Phillips Brothers at East Barre, Vt., where they remained in business until the death of the latter, in 1902, at which time F. A. Phillips returned to Northfield and went in the firm of Cannon & Slack, under the firm name of Cannon, Slack & Co. After four years Mr. Cannon sold out to the

other members, and the business has since been conducted under the firm name of Phillips & Slack. Mr. Phillips is a member of the Northfield Lodge of F. and A. M.

Mr. Slack was born in Chelsea, Vt., February 19, 1871. In 1891 he began his apprenticeship at Cross Brothers, in Northfield, and in 1898 formed a partnership with Thomas B. Cannon under the firm name of Cannon & Slack, in a small circular shed. In the following year they started building on the present site, the size of the shed being 75x60 feet, and later built an addition of 85 feet. Mr. Slack is also a member of the Northfield Lodge, F. and A. M., and of the I. O. O. F.

After buying out Mr. Cannon, Phillips & Slack entirely remodeled their plant, making an addition of 260 feet to the original plant, building a fine office, etc., which, together with the installation of modern and improved machinery, which is run by electricity, makes their plant now one of the largest and best in the Barre district. They employ from 60 to 75 skilled workmen, and their reputation for putting out first-class work is second to none. No order is too large for them to handle to advantage and none too small to secure their most careful attention.

WATERBURY.

WALTER L. CARR AND LEVI SWIFT compose the firm of W. L. Carr & Co. at Waterbury, Vt. The firm was established in 1909 by Mr. Carr and his brother, H. W. Carr, in Barre, but in 1911, Walter and Mr. Swift bought the business and moved to Waterbury, where they have a large and up-to-date plant with polishing mill and two surface cutters, and employ 40 men. They do all kinds of monumental work and have cut several mausoleums in the past year. Their trade extends to all parts of the country. Mr. Carr was born at Warren, N. H. February 2, 1882, he went to Barre when a child and later to Laconia, N. H., and remained there until 15 years of age, when he returned to Barre, and learned the granite cutters' trade, which he followed as a letter cutter and carver until engaged with his brother. He was married in 1900 to Eva May Nichols of Shoreham, Vt. He is a member of K. of P.

Mr. Swift was born on a farm at Huntington, Vt., February 6, 1853. Some years later he moved with his parents to Middlesex, Vt., where he has lived for more than fifty years. He attended the public schools with a year at Northfield High School, and later

teaching for a time until he assumed the management of the farm, dairying being the chief industry, supplemented with pork products. He owns one of the largest fruit and apple orchards in this county; also owns an orange grove in Florida. He has no desire for public office, although he has served two years as school director in town.

THE PERRY GRANITE COMPANY, Waterbury, Vt., was incorporated in 1909 with a capital stock of \$30,000, the officers being William H. Perry, president; P. J. Flannery, vice-president, and J. J. Goodwin, treasurer. They built their plant during that year and equipped it with all the latest machinery and appliances, including two polishing wheels and a ten-ton crane, the motive power being furnished by a 90 horse-power electric motor. The shed is 220x50 feet in dimensions, with engine and blacksmith shops adjoining. They employ 45 men and do all kinds of monumental and vault work which goes all over the country.

Mr. Perry is a native of Penryn, England, where he was born January 31, 1868. He moved with his parents to Concord, N. H., when an infant, and from there to Troy, N. Y., where he learned his trade under his father, Bennett Perry. Later he went to Keesville, N. Y., with the Keesville Granite Company, where he was employed as foreman on the Criminal Court House work. He then moved to Concord, N. H., and for eight years was engaged in business, afterwards locating in Milford, Mass., with the Consolidated Company. He was foreman for B. A. & G. M. Williams of New York City about one year, when he went to Waterbury as manager for the Drew-Daniels Granite Company. Two years afterward he established his present business. He is a member of Ausable Lodge and Waterbury Chapter, F. & A. M., Mentor Lodge, Milford, Mass., I. O. O. F., and the Elks.

Mr. Flannery was born in Sligo, Ireland, March 20, 1880, and went to Quincy in 1898, where he learned his trade with Adam Vogel. In 1901 he moved to Waterbury, and was employed by the Drew-Daniels Granite Co., then with Ryle & McCormick of Montpelier. Later he returned to Drew-Daniels Co. until he entered this company.

CLIFTON L. O'CLAIR of the firm of O'Clair & Anair, Waterbury, Vt., was born in Stuckley, P. Q., November 8, 1872. When 20 years of age he learned the stonecutting trade from Peter Dana,



LEVI SWIFT.



WALTER L. CARR.

Firm of W. L. Carr & Co., Waterbury.



PLANT OF O'CLAIR & ANAIR, WATERBURY.



CUT BY HOSMER BROTHERS, GROTON, VT.



CUT BY CLARENCE H. HENDRY, GROTON, VT.



CUT BY ALBERT CHICCHI, GROTON, VT.



PLANT OF THE UNION GRANITE COMPANY, MORRISVILLE.



CUT BY F. W. MOULD, MORRISVILLE.



PLANT OF THE PERRY GRANITE COMPANY, WATERBURY.

Franklin, N. H., where he remained five years, then going to Hardwick, Vt., where he worked for Danforth & Clapp one year. He then formed a partnership with H. W. Lavelli under the firm name of O'Clair & Lavelli, which was dissolved eighteen months later by Mr. O'Clair buying his partner's interest and conducting the business alone about two years, at which time he became associated in business with Joseph J. Anair, under the firm name of O'Clair & Co. Five years ago they changed the firm name to its present title and moved to Waterbury and built their present plant, consisting of main shed, 120x36 feet, over stock shed, 60x36 feet, machine shop, 24x12 feet, and polishing mill, 30x24 feet in dimensions, respectively. All the latest improved tools and appliances have been installed, all of which are operated by an 85 horse-power electric motor. The plant is steam heated, and they employ 40 men. Their work includes all kinds of polishing, carving and lettering and goes to all parts of the country.

Joseph James Anair was born at Salem, now Derby, Vt., March 14, 1868. He learned the cutters' trade at the Union Granite Company, Hardwick, Vt., and then worked in various places until he became associated with Mr. O'Clair. He died May 20, 1912.

GROTON.

THE FIRM OF HOSMER BROTHERS, Groton, is composed of Harry A. and Robert F. Hosmer. They are natives of Topsham, Vt., where Harry was born December 6, 1879, and his brother August 28, 1882. Harry learned his trade with Martin Gibson, of South Ryegate, with whom he stayed two years, when he went to Groton and was employed by Andrew Benzie, after which he moved to Hardwick and worked there until 1892, when he returned to Groton and formed a partnership with his brother.

Robert learned his trade with Charles Grant, of South Ryegate, where he worked two years, then going to Groton in the shed of Andrew Benzie, after which he joined his brother in business.

Their plant is 35 x 115 feet in dimensions, and is equipped with modern machinery, run by a 25 horse-power electric motor, and they employ 12 men. They make a specialty of carving and lettering.

CLARENCE H. HENDRY, Groton, is a native of Boston, Mass., where he was born May, 1867. After completing his trade he went

West, where he worked for nine years, at which time he moved to Groton and was employed two years by John Benzie. He then became associated in business with his brother, which firm continued one year, when they dissolved partnership, and since then Mr. Hendry has conducted his business alone.

He occupies a well-equipped plant, the shed being 100 by 25 feet in dimensions, and he gives employment to eight men. He makes all kinds of monuments, but his specialty is rock face, lettered, hammered and carved work, which is sent all over the country. A sample of his work is illustrated on another page. Mr. Hendry is a member of K. of P.

ALBERT CHECCHI, Groton, is a native of Viggiu, Como, Italy, where he was born September 27, 1873. He spent ten years in learning drawing, carving and lettering, and in 1896 came to this country and located in Barre, where he worked a short time, when he moved to Williamstown, Vt., and was employed by McIver & Roxton. A few years later he returned to Barre and worked for Andrew Barclay a short period, when he went to Morrisville, Vt., and was engaged by Mould & Davis. He then went to Groton and three years ago started in business with G. Buzzi, under the firm name of Checchi & Buzzi, but Mr. Checchi bought his partner's interest one year later and since then has been alone in business. His plant is equipped with all modern appliances, and he employs 13 men. Although he does all kinds of monumental work, his principal business is the manufacture of markers, or "hickeys."

SOUTH RYEGATE.

THE FIRM OF ROSA BROTHERS, South Ryegate, is composed of John, Eugene A. and Frank G. Rosa, all of whom are natives of Maniago, Venito, Italy, John being born in 1875, Eugene, January, 1877, and Frank, July 27, 1879. The former went to South Ryegate in 1890, Eugene in 1892, and Frank in 1896. John left Ryegate and worked in Barre and Quincy, after which he returned to Italy and served three years in the army. He then went back to Quincy and shortly after moved to South Ryegate and engaged in business.

Eugene left Ryegate for Quincy, after which he was employed in Boston, Raymond, Cal., the Hawaiian Islands and Port-

land, Me. He then went to Italy for several months, after which he returned to Portland and worked there until he joined his brothers in business.

Frank also went from Ryegate to Quincy, but left there in 1899 and went to New Hampshire. He then went to Italy and served three years in the army, after which he moved to Portland, Me., and worked for the American Stone Co. for two years, when, in 1902, he went to South Ryegate to engage in business.

Their plant is 136 x 44 feet in dimensions and they do all kinds of monumental and building work, giving employment in the cutting shed to 16 men.

Rosa Brothers also own a valuable granite quarry, from which they take a popular granite. All the latest machinery for quarrying has been installed, including a 40 horse-power boiler and a 35 horse-power engine, and they employ 11 men.

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